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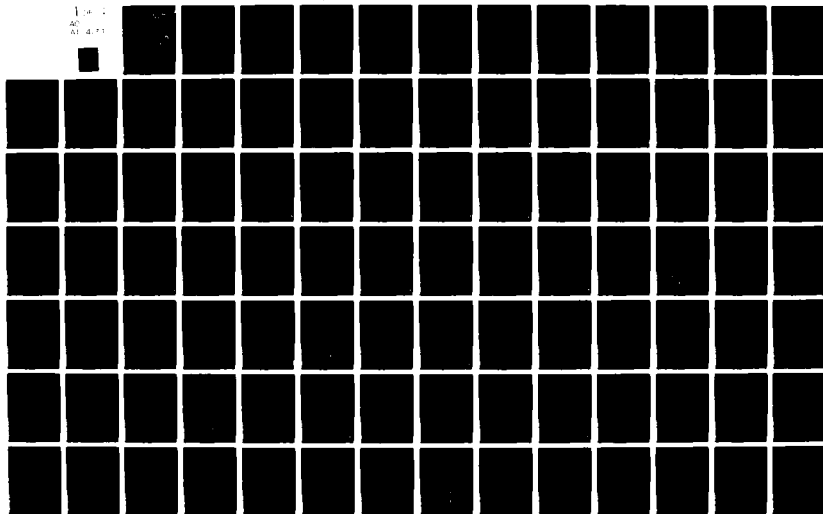
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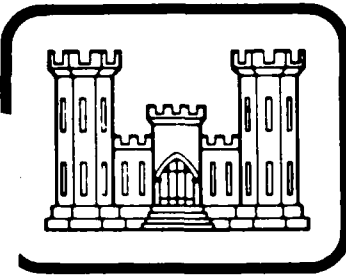
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ARMY ENERGY DATA ANALYSIS, FY80 UPDATE

COMPUTER SCIENCES CORPORATION

July 1981

FINAL REPORT

APPROVED FOR PUBLIC RELEASE, DISTRIBUTION UNLIMITED

Prepared for:
US Army Facilities Engineering Support Agency
Technology Support Division
Fort Belvoir, VA 22060

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TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	1
Performance Indicators By MACOM.....	3
The Energy Conservation Investment Program.....	8

Appendix

Data Sheets and Graphs (see page ii)

List of Illustrations	vi
List of Tables.....	vii

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TABLE OF CONTENTS
APPENDIX
GRAPHS & DATA SHEETS

<u>MACOM</u>	<u>Installation</u>	<u>Page</u>
	Introduction.....	A-1
ARMY TOTAL	World-Wide Consolidation.....	A-2,3
OCE	Cold Regions Research Eng. Lab.....	A-4,5
USMA	U.S. Military Academy.....	A-6,7
MDW	Military District of Washington, D.C.....	A-8,9
ACC	Army Communication Command.....	A-10,11
	Fort Huachuca.....	A-12,13
	Fort Ritchie.....	A-14,15
HSC	Health Services Command.....	A-16,17
	Fort Detrick.....	A-18,19
	Fitzsimmons AMC.....	A-20,21
	Walter Reed AMC.....	A-22,23
INSCOM	Intelligence & Security Command.....	A-24,25
	Arlington Hall Station.....	A-26,27
	Diogenes (Overseas).....	A-28,29
	Vint Hill Farms Station.....	A-30,31
MTMC	Military Traffic Management Command.....	A-32,33
	Bayonne Military Ocean Terminal.....	A-34,35
	Military Traffic Mgt. Command (other).....	A-36,37
WESTCOM	Western Command.....	A-38,39
	Schofield Barracks.....	A-40,41
	Fort Shafter.....	A-42,43
FORSCOM	FORSCOM.....	A-44,45
	Fort Bragg.....	A-46,47
	Ft. Buchanan.....	A-48,49
	Fort Campbell.....	A-50,51
	193d Inf Bde, CZ.....	A-52,53
	Fort Carson.....	A-54,55
	Fort Devens.....	A-56,57
	Fort Drum.....	A-58,59
	Fort Greely.....	A-60,61
	Homestead AFB.....	A-62,63
	Fort Hood.....	A-64,65
	Fort Sam Houston.....	A-66,67
	Fort Indiantown Gap.....	A-68,69
	Fort Lawton.....	A-70,71
	Fort Lewis.....	A-72,73
	Fort McCoy.....	A-74,75

TABLE OF CONTENTS (CON'T.)

APPENDIX

GRAPHS & DATA SHEETS

MACOM

Installation

Page

Fort McPherson.....	A-76,77
Fort Meade.....	A-78,79
Fort Ord.....	A-80,81
Fort Polk.....	A-82,83
Fort Richardson.....	A-84,85
Fort Riley.....	A-86,87
Presidio of San Francisco.....	A-88,89
Fort Sheridan.....	A-90,91
Fort Stewart.....	A-92,93
Vancouver Barracks.....	A-94,95
Fort Wainwright.....	A-96,97
Yakima Firing Center.....	A-98,99
TRADOC.....	A-100,101
Fort Belvoir.....	A-102,103
Fort Benning.....	A-104,105
Fort Bliss.....	A-106,107
Carlisle Barracks.....	A-108,109
Fort Chaffee.....	A-110,111
Fort Dix.....	A-112,113
Fort Eustis.....	A-114,115
Fort Gordon.....	A-116,117
Fort Hamilton.....	A-118,119
Fort Benjamin Harrison.....	A-120,121
Fort A. P. Hill.....	A-122,123
Fort Jackson.....	A-124,125
Fort Knox.....	A-126,127
Fort Leavenworth.....	A-128,129
Fort Lee.....	A-130,131
Fort McClellan.....	A-132,133
Fort Monroe.....	A-134,135
Fort Pickett.....	A-136,137
Fort Rucker.....	A-138,139
Fort Sill.....	A-140,141
Fort Leonard Wood.....	A-142,143
DARCOM Consolidation.....	A-144,145
DEPOT Consolidation- DARCOM.....	A-146,147
Alabama Army Depot.....	A-148,149
Anniston Army Depot.....	A-150,151
Corpus Christi Army Depot.....	A-152,153

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DARCOM

TABLE OF CONTENTS (CON'T.)

APPENDIX

GRAPHS & DATA SHEETS

<u>MACOM</u>	<u>Installation</u>	<u>Page</u>
	Letterkenny Army Depot.....	A-154,155
	Lexington-Blue Grass Depot Activity.....	A-156,157
	New Cumberland Army Depot.....	A-158,159
	Red River Army Depot.....	A-160,161
	Sacramento Army Depot.....	A-162,163
	Savanna Army Depot.....	A-164,165
	Seneca Army Depot.....	A-166,167
	Sharpe Army Depot.....	A-168,169
	Sierra Army Depot.....	A-170,171
	Tobyhanna Army Depot.....	A-172,173
	Tooele Army Depot.....	A-174,175
	GOCO Consolidation DARCOM.....	A-176,177
	Badger AAP.....	A-178,179
	Cornhusker AAP.....	A-180,181
	Holston AAP.....	A-182,183
	Indiana AAP.....	A-184,185
	Iowa AAP.....	A-186,187
	Joliet AAP.....	A-188,189
	Kansas AAP.....	A-190,191
	Lake City AAP.....	A-192,193
	Lone Star AAP.....	A-194,195
	Longhorn AAP.....	A-196,197
	Louisiana AAP.....	A-198,199
	Michigan Army Missile Plant.....	A-200,201
	Milan AAP.....	A-202,203
	Newport AAP.....	A-204,205
	Radford AAP.....	A-206,207
	Ravenna AAP.....	A-208,209
	Riverbank AAP.....	A-210,211
	Scranton AAP.....	A-212,213
	Sunflower AAP.....	A-214,215
	Twin Cities AAP.....	A-216,217
	Ethan Allen Firing Range.....	A-218,219
	Volunteer AAP.....	A-220,221
	"Other" Consolidation DARCOM.....	A-222,223
	Aberdeen Proving Ground.....	A-224,225
	Army Materials & Mechanics Research Center.....	A-226,227

TABLE OF CONTENTS (CON'T.)

APPENDIX

GRAPHS & DATA SHEETS

<u>MACOM</u>	<u>Installation</u>	<u>Page</u>
	Detroit Arsenal.....	A-228,229
	Harry Diamond Lab.....	A-230,231
	Dugway Proving Ground.....	A-232,233
	Frankford Arsenal.....	A-234,235
	Hawthorne AAP.....	A-236,237
	Jefferson Proving Ground.....	A-238,239
	McAlester AAP.....	A-240,241
	Fort Monmouth.....	A-242,243
	Natick Research & Development Center.....	A-244,245
	Picatinny Arsenal.....	A-246,247
	Pine Bluff Arsenal.....	A-248,249
	Redstone Arsenal.....	A-250,251
	Rock Island Arsenal.....	A-252,253
	Rocky Mountain Arsenal.....	A-254,255
	St. Louis Area Support Center.....	A-256,257
	Selfridge Area Support Center.....	A-258,259
	Watervliet Arsenal.....	A-260,261
	White Sands Missile Range.....	A-262,263
	Yuma Proving Ground.....	A-264,265
EUSA	Eighth US Army-Korea.....	A-266-267
BMDSC	Ballistic Missile Defense System Command.....	A-268,269
USARJ	US Army-Japan.....	A-270,271
	US Army Garrison-Honshu.....	A-272,273
	US Army Garrison-Okinawa.....	A-274,275
USAREUR	US Army Europe Consolidation.....	A-276,277
	V Corps-USAREUR.....	A-278,279
	VII Corps-USAREUR.....	A-280,281
	21st Support Command USAREUR.....	A-282,283
	26th Support Group-USAREUR.....	A-284,285
	Berlin-USAREUR.....	A-286,287
	SETAF-USAREUR.....	A-288,289
	7th Army Training Command-USAREUR.....	A-290,291

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Distribution of Army Energy Consumption by MACOM and Fiscal Year.	10
2	The Army Energy Barrel	13
3	Cumulative Cost of Completed ECIP Projects and Cost Avoidance of Reduced Consumption of Installations with ECIP Projects	14
4	Cumulative Cost of Completed ECIP Projects and Annual Change in Energy Consumption of Installations with and without ECIP Projects	16
5	U.S. Army ECIP Percent Distribution of Dollars by Type and Number of Projects	17
6A-6D	Energy Consumption by Installation	19
7	Climatic Zones in the United States	24
8	BTU/GSF by Climatic Regions and Installations with and without ECIP Projects	26

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
1.	Total energy consumption and as a factor of population served and effective population.	4
2.	Electric consumption as a factor of resident population, air conditioning capacity and gross square feet of buildings.	6
3.	Gross square footage as a factor of effective population, total energy consumption and thermal energy consumption.	7
4.	Difference in MBTUS consumed by MACOM in FY 80 compared to FY 75 and percent of Army total in FY 80.	11
5.	ECIP Projects completed by end of FY 80.	12
6.	FY 75 & FY 80 Energy Consumption per gross square foot of buildings.	23
7.	BTU/GSF Comparisons by climatic zone descriptions between U.S. Installations (with and without ECIP) and overseas locations.	27
8.	Distribution of ECIP \$ by MACOM.	28

INTRODUCTION

This study was conducted for the U.S. Army by the Department of Energy under contract to the Computer Sciences Corporation, Washington, D.C. The data are compiled from Major Command (MACOM) Technical Data Reports, DA Form 2788 Series, prepared under the provisions of AR-420-16. These data are published annually under the title "Facilities Engineering Annual Summary of Operations", which is more commonly referred to as the "Red Book."

This report presents statistical data at a detailed level for fiscal years 1975 through 1980 for each reporting installation or activity in the Red Book, including MACOM summary data. The use of the term "Installation" throughout this report refers to Red Book "reporting installations" and includes all sub-posts and activities satellited upon that installation and not otherwise reported separately. This report presents and examines data as discussed in the following paragraphs.

A Data Sheet has been prepared for each installation and MACOM, and a graph displaying seven key data elements has been provided on the page opposite each data sheet. These data sheets and graphs are included in Appendix A. Information pertaining to completed Energy Conservation Investment Program (ECIP) projects, including family housing projects, has been posted on the data sheets and graphs. This enables a visual determination of the effects of ECIP projects on the graphically displayed data.

The Installation Data Sheets contain selected performance indicators which influence or measure energy consumption. These data elements include:

- *1. Total Energy Consumption and the percent deviation (PD) from the base year, FY 75.
- *2. Thermal energy consumption and PD.
- *3. Electrical energy consumption and PD.
4. Resident population and PD.
5. Non-resident population and PD.
6. Population served and PD (Resident plus non-resident population).
- *7. Effective population and PD (Resident plus 1/3 non-resident population).
8. Energy consumption per population served and PD.
9. Energy consumption per effective population and PD.
10. Electric energy consumption per resident population and PD.
- *11. Installed air conditioning capacity and PD.
12. Electrical energy consumption per ton of air conditioning and PD.
- *13. Real property inventory (in KSF) and PD.
14. Real property inventory per effective population and PD.
- *15. Energy consumption per gross square foot and PD.
16. Thermal energy consumption per gross square foot and PD.
17. Electrical energy consumption per gross square foot and PD.
18. The Real Property Inventory is broken down into building categories on Installation data sheets.

*These seven data elements are plotted on Installation and MACOM graphs.

Trend lines have been computed for each Installation, MACOM and the world-wide consolidation graph using a linear regression model for the total energy consumption data. The correlation coefficient has been determined and is posted below the trend line on each graph. These trend lines allow a statistical prediction of the total energy consumption in FY 85. The correlation coefficient shows how much reliance can be placed on the prediction. The closer the correlation coefficient is to the value 1.00 the higher the confidence level that the prediction is reliable. For example, on the World-Wide Consolidation graph, the trend line predicts a reduction in energy consumption of 14.5 percent in FY 85 with a correlation coefficient of .79. A trend analysis of the energy consumption per gross square foot of building space (BTU/GSF) predicts a reduction of 22.8 percent in FY 85 with a correlation coefficient of .90. These predictions, over such a large data base, are quite reliable. Like all statistical tools, however, there are limitations. The trend lines are only a prediction of future performance based on past "track records". Also, where the analysis predicts a reduction of greater than one hundred percent, it is obviously impossible.

A detailed look at Installations with completed ECIP projects has been included in this report and offers a significant opportunity to view the results of retrofitting facilities.

Climatic influences have been analyzed by grouping Installations based on average recorded heating and cooling degree days. These groups are then divided into those installations "with" and "without" completed ECIP projects in order to measure the improved building efficiencies after retrofitting.

A similar report was published in August 1980 covering FY 75 through FY 79 for U.S. Installations only.

PERFORMANCE INDICATORS BY MACOM

The performance indicators displayed on MACOM/Installation data sheets are compared at the MACOM level in the following discussion and tables. The world-wide indicators are included and form a base for comparisons. Energy consumption can be measured against population and the size and type of facilities. Industrial activities are more energy-intensive, but no common factor can be used to measure conservation performance for all types of activities. The best performance indicator within the following tables is the percent deviation (PD) of FY 80 from FY 75.

Table 1 shows the PD of total energy consumption* and energy consumption as a factor of the population served and the effective population. The negative PDs indicate the improvement occurring in most MACOMS.

A further breakout throughout this report occurs within DARCOM. The GOCO installations are grouped together because they have comparable energy consumption characteristics and are less affected by energy conservation measures than they are by production contracts. The Army Depots are grouped together because they are generally similar in energy consuming characteristics. The remainder of DARCOM, called "Other" consists of Arsenals, RDTE installations, Proving Grounds and the remaining DARCOM installations. This sub-dividing of DARCOM permits a closer scrutiny of their internal energy management program by looking clearly at the groups of similar installations which are affected by energy conservation measures.

* Total energy consumption reported herein is based on Red Book data only and does not include the Army National Guard or the Civil Works activities of the Corps of Engineers. Therefore these data will not correlate with the Defense Energy Information System (DEIS).

TABLE 1
TOTAL ENERGY CONSUMPTION AND AS A FACTOR
OF POPULATION SERVED AND EFFECTIVE POPULATION

	TOTAL ENERGY CONSUMPTION PERCENT CHANGE FY 80 from FY 75	ENERGY CONSUMPTION/ POPULATION SERVED & PD (MBTU/CAPITA)		ENERGY CONSUMPTION/ EFFECTIVE POPULATION & PD (MBTU/CAPITA)	
World Wide	-9.1	103.5	-11.6	141.3	-10.5
DARCOM	-28.9	221.9	-28.7	466.9	-30.6
OTHER	-11.1	164.9	-15.5	305.9	-16.9
DEPOTS	-9.0	154.3	-16.5	402.7	-16.5
GOCO	-48.0	656.6	-24.4	1,832.2	-25.5
FORSCOM	+ 0.6	89.7	-5.2	121.9	0
USAREUR	-2.1	82.5	-11.3	101.2	-8.9
TRADOC	+0.8	100.0	+1.5	128.7	-0.7
EUSA	-6.3	85.1	-0.7	120.8	-1.0
USARJ	-66.2	78.4	-28.0	140.8	-14.9
HSC	+33.8	281.5	+27.6	514.4	+24.7
WESTCOM	+13.8	74.7	+18.2	83.5	+0.7
USMA	-4.8	122.6	-7.2	149.6	-3.2
ACC	-1.1	80.0	6.0	118.5	+9.5
MTMC	-19.9	209.6	-2.8	477.5	+0.1
MDW	-11.4	31.2	-12.5	75.1	-7.4
INSCOM	-0.8	101.0	+15.0	186.4	+18.3
OCE	+32.4	327.0	+17.0	977.9	+16.7
BMDSC	+19.6	13.0	+60.5	13.1	+59.8

World-Wide electrical energy consumption has risen 6.7 percent since FY 75. The following factors help to explain this increase. The construction program has been devoted to projects that improve soldiers' living conditions, such as medical, troop housing and community facilities. Some training facilities, such as flight simulators, have also contributed to this increase. Overall, the installed air conditioning capacity has increased 31.1 percent from 486,652 tons in FY 75 to 638,184 tons in FY 80. Electric consumption as a factor of resident population and installed air conditioning capacity is shown in Table 2, along with the electric energy consumption per square foot of building space. This efficiency indicator shows the general increase in electric BTU/GSF, which amounts to 2 percent world-wide.

The Real Property Inventory has increased world-wide by 4.6 percent in this period, from 730 SF to 750 SF per capita of effective population. Table 3 shows that this increase in space is spread across almost all MACOMS. The effective population rose 1.5 percent in this time frame.

Table 3 also shows the total energy consumption per gross square foot of building space. This column is most important inasmuch as Presidential Executive Order 12003, dated 20 July 1977, requires all Federal agencies to reduce their BTU/GSF by 20 percent by FY 1985. The Army achievement of a reduction of 13.1 percent through FY 80 shows good progress, but not evenly distributed across all the MACOMS. The last column in Table 3 shows the thermal energy consumption/GSF. The improvement in reduction of thermal BTU/GSF since FY 75 is remarkably different from the electric BTU/GSF. It is apparent that most of the energy conservation measures have been successfully targeted against heating fuels. The ECIP projects discussed verify that heating system controls, insulation and such have been the most popular projects undertaken. A notable exception is the ECIP project completed at Red River Army Depot in February 1977. This \$341,359 project provided lighting improvements, and the reduction in electric consumption was sharp and has remained at the new low level since that time.

TABLE 2

ELECTRIC CONSUMPTION AS A FACTOR OF RESIDENT POPULATION,
AIR CONDITIONING CAPACITY AND GROSS SQUARE FEET OF BUILDINGS

	ELECTRIC CONSUMPTION/ RESIDENT POPULATION & PD (MBTU/CAPITA)		ELECTRIC CONSUMPTION/ TON OF AIR CONDITION- ING & PD (MBTU/TON)		ELECTRIC CONSUMPTION/ GROSS SQUARE FOOT OF BUILDINGS & PD (BTU/GSF)	
World Wide	77.2	+6.2	137.3	-18.7	84,283	+2.0
DARCOM	416.4	-21.8	109.9	-35.6	77,095	-21.4
OTHER	256.6	-9.0	86.0	-23.6	111,033	-19.4
DEPOTS	1,006.7	-10.6	176.9	-19.3	48,818	-6.9
GOCO	4,104.8	-32.9	153.0	-62.5	67,279	-40.2
FORSUCOM	77.6	+22.2	135.0	-25.6	98,856	+8.0
USAREUR	37.4	+9.4	1,143.1	+6.1	52,303	+7.5
TRADOC	77.3	+20.8	98.4	-1.9	104,107	+18.7
EUSA	68.9	+19.6	278.4	-34.2	130,995	+20.1
USARJ	123.0	-22.4	109.0	-36.1	74,583	-41.1
HSC	463.4	+55.1	109.7	+63.5	256,654	+25.8
WESTCOM	80.0	-6.3	239.0	-18.8	108,014	-15.3
USMA	57.7	+4.7	93.3	-21.2	62,668	+0.7
ACC	88.6	+48.4	125.9	-4.5	100,577	+13.1
MTMC	554.3	+39.1	239.2	-8.2	54,780	+54.4
MDW	153.6	+27.4	78.7	+11.7	153,714	+19.9
INSCOM	171.6	+25.6	52.8	+0.8	126,580	+0.7
OCE	NA	--	512.8	-28.6	535,043	-14.3
BMDSC	NA	--	NA	--	NA	--

TABLE 3

GROSS SQUARE FOOTAGE AS A FACTOR OF EFFECTIVE POPULATION,
TOTAL ENERGY CONSUMPTION AND THERMAL ENERGY CONSUMPTION

	RPI/EFFECTIVE POPULATION & PD (KSF/CAPITA)		TOTAL ENERGY CONSUMP- TION/GROSS SQUARE FOOT OF BUILDINGS & PD (MBTU/TON)		THERMAL ENERGY CONSUMP- TION GROSS SQUARE FOOT OF BUILDINGS & PD (BTU/GSF)	
WORLD-WIDE	0.75	+2.7	188,643	-13.1	104,360	-22.4
DARCOM	2.42	+6.1	192,947	-34.6	115,852	-41.1
OTHER	1.32	15.8	231,132	-28.3	120,099	-35.0
DEPOTS	4.03	-4.3	99,984	-12.8	51,166	-17.8
GOCO	6.82	+38.6	267,258	-46.2	199,979	48.0
FORSCOM	0.64	+8.5	189,212	-7.8	90,356	-20.5
USAREUR	0.63	0	159,489	-8.8	107,186	-15.1
TRADOC	0.60	-1.6	214,390	+1.6	110,283	-10.5
EUSA	0.42	0	290,707	-0.8	159,712	-13.2
USARJ	0.99	+6.5	142,062	-20.2	67,479	+30.8
HSC	1.06	+27.8	485,879	-2.4	229,225	-22.0
WESTCOM	0.70	+22.8	119,729	-18.3	11,715	-38.4
USMA	0.82	+1.1	182,461	-4.3	119,792	-6.7
ACC	0.67	+15.3	177,246	-5.1	76,669	-21.6
MTMC	3.65	-17.8	130,813	+2.1	76,033	+5.6
MDW	0.30	-12.9	252,191	+6.3	98,478	-10.0
INSCOM	0.78	+18.2	237,861	-1.2	111,281	-3.2
OCE	1.59	+54.2	613,460	-24.3	78,416	-58.0
BMDSC	0.86	+26.5	15,290	+26.6	15,290	+26.6

THE ENERGY CONSERVATION INVESTMENT PROGRAM

The Army's performance in energy conservation since the oil embargo of 1973 has been quite successful. The level of energy consumption in fixed facilities fell from 254 Trillion Btu (TBTU) in FY 1973 to 221 TBTU in FY 1974 and 215 TBTU in FY 1975. The reduced energy consumption in these three years was primarily due to Command emphasis on conservation, low cost or no cost conservation measures in facilities and changes in operating techniques of facilities. The fiscal year 1976 savings, down to 201 TBTU, reflected a mild winter over most the populated areas of the Army combined with a substantial reduction (32 percent) in the amount of energy consumed by the DARCOM Government Owned-Contractor Operated (GOCO) installations. This GOCO reduction reflects the reduced activity in the ammunition plants and has leveled off in FY 1980 at 48 percent below FY 1975. The GOCO reduction in FY 1976 accounted for 69 percent of the total Army savings and in FY 1980 for 77 percent. These savings are fragile because they reflect an idle industrial base instead of permanently increased efficiency in facilities operations. These timely savings have permitted the Army time to plan a strategy for permanent savings, however, and the progress in that direction is beginning to show dividends.

The Energy Conservation Investment Program (ECIP) started in FY 1976 as the DOD program for major building retrofits to improve energy efficiency. The early program years used the simple payback formula for project selection and changed to Energy Savings to Cost Ratios (E/C) and more sophisticated Life Cycle Cost Analysis to support project selection in the later years. The results of the ECIP are difficult, if not impossible, to accurately measure because of the lack of utility consumption meters on individual buildings. Consequently there are no individual "before and after" data to prove the benefits of these retrofit projects and confirm the design estimates of their anticipated savings.

The following analysis examines the ECIP program through FY 1980 and makes predictions about energy consumption through 1985. The Army Energy Plan and the Army Facilities Energy Plan outline the goals and objectives to be achieved, and the ECIP is the major effort in the area of Buildings and Facilities. The goals of reducing overall energy consumption by 20 percent and the energy consumption per gross square foot (BTU/GSF) by 20 percent by FY 1985 are truly a worthwhile challenge in view of the awesome increase in energy prices since 1973. The achievements through FY 1980 are notable, but, as mentioned above, fragile. The overall energy consumption in facilities is down 9.1 percent from FY 1975 and the BTU/GSF is down 13.1 percent from the same base.* Computing the trend analysis for these two goals shows that by the end of FY 1985 the predicted energy consumption will be down by 14.5 percent and the BTU/GSF will be down by 22.8 percent. However, this trend analysis statistically presumes that the past GOCO impact on savings will continue to the same degree through FY 1985 and that is not true. Other MACOMS and the remaining installations within DARCOM must show progress toward meeting the FY 1985 goals if they are to be met.

* Red Book data only. Does not include Army National Guard and Civil Works Activities in the Corps of Engineers. Actual total Army Consumption is lower than Red Book data indicates.

Figure 1 shows the distribution of Army Energy Consumption by each MACOM for FY 75 through FY 80. Obviously, a substantial change in energy consumption within a MACOM that consumes only a small amount of the total Army energy will not have a significant impact. For example, the Health Services Command increased their overall energy consumption by 33.8 percent, but they only consumed 2.6 percent of the Army total. This is shown on Table 4 which lists each MACOM in order of the difference in MBTUs consumed in FY 1980 from FY 1975. Interestingly, HSC reduced its BTU/GSF consumption in FY 1980 by 2.6 percent, compared to FY 1975.

The largest percentage reduction occurs in the U.S. Army, Japan, with a 66.2 percent reduction. This is the direct result of a mission drawdown in Okinawa which reduced its energy consumption by 89.8 percent and its square footage by 93.5 percent. The remaining facilities in Okinawa are consuming 58.1 percent more BTU/GSF in contrast to the Honshu Garrison which is consuming 20.3 percent fewer BTU/GSF with an overall reduction in consumption of 23.5 percent with only 3.9 percent less square footage. Overall, Japan has 57.7 percent less square footage and is consuming 20.2 percent less BTU/GSF.

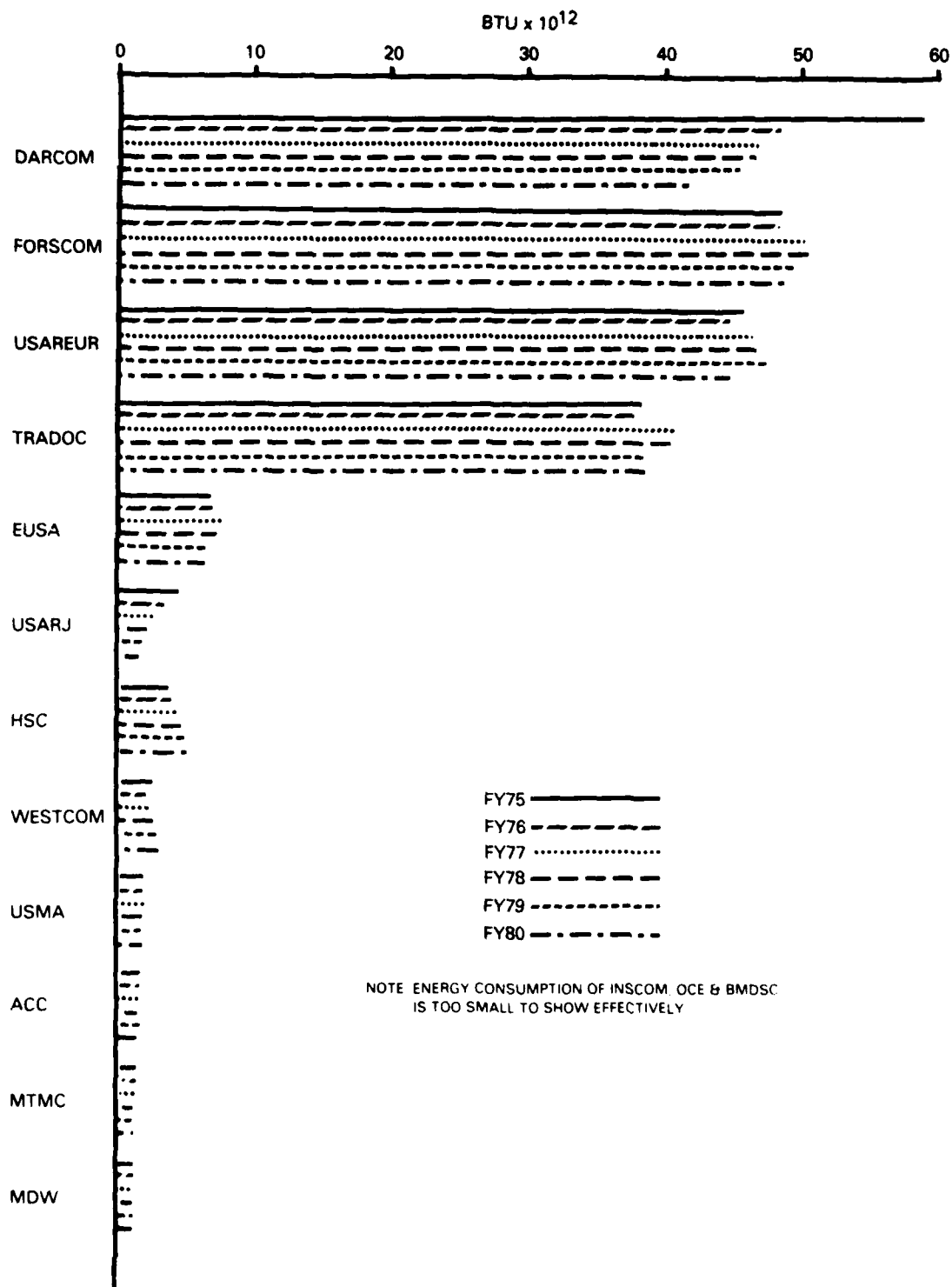


FIGURE 1
DISTRIBUTION OF ARMY ENERGY CONSUMPTION
BY MACOM AND FISCAL YEAR

TABLE 4

DIFFERENCE IN MBTUS CONSUMED BY MACOM IN FY 80
COMPARED TO FY 75 AND PERCENT OF ARMY TOTAL IN FY 80

	DIFFERENCE IN MBTUS CONSUMED IN FY 80 COMPARED TO FY 75	PERCENT CHANGE FY 80 FROM FY 75	PERCENT OF TOTAL ARMY CONSUMPTION IN FY80
DARCOM	-17,044,459	-28.9	21.3
(GOCOs)	(-13,912,168)	(-48.0)	(7.7)
(OTHER)	(-2,354,070)	(-11.1)	(9.6)
(DEPOTS)	(-778,221)	(-9.0)	(4.0)
USARJ	-2,834,944	-66.2	0.7
USAREUR	-947,430	-2.1	22.8
KOREA	-433,541	-6.3	3.3
MTMC	-297,703	-19.9	0.6
MDW	-135,222	-11.4	0.5
USMA	-92,496	-4.8	0.9
ACC	-18,510	-1.1	0.8
INSCOM	-4,737	-0.8	0.3
BMDSC	+6,275	+19.6	-
OCE	+24,163	+32.4	0.1
FORSCOM	+279,961	+0.6	24.9
TRADOC	+314,941	+0.8	19.6
WESTCOM	+353,724	+13.8	1.5
HSC	+1,268,695	+33.8	2.6
TOTAL	-19,561,283	-9.1	100.0

In evaluating the ECIP, it should be noted that the early program years were restricted to Stateside installations and those overseas installations which consume U.S. source energy (e.g., USAREUR which burns U.S. coal). A further restriction was made to exclude GOCO facilities from receiving ECIP projects because of the peculiar contracts governing their operations. Other modernization energy conservation programs support the GOCOs but ECIP can be used at GOCO facilities when non-production facilities are being retrofitted.

Regardless, any meaningful analysis of the ECIP and its impact can only be made when the projects are completed, not on the drawing board or under construction. For this reason, this analysis concentrates on those ECIP projects which were completed by the end of FY 1980. Included in this analysis are those Family Housing ECIP type projects which were funded under the Family Housing Appropriations.

Based on the above discussion, GOCO plants are not included in this analysis except when they do have completed ECIP projects. The sensitivity of GOCO plants to production runs is far greater than the impact of building retrofits, so distortion could easily result if they were included. The reporting requirements under ECIP and the program criteria have changed considerably since the program was implemented so certain estimates were made as to some of the project completion dates. The project costs changed with the various stages of design, construction and modifications so the costing data is the best available through current records. Through the end of FY 1980 no ECIP projects were completed at any overseas locations so they do not influence this analysis and are also excluded. With these qualifications, the following analysis of the completed ECIP projects is made.

Table 5 shows the number and cost of the ECIP projects completed by the end of FY 1980. As stated, the GOCO installations without completed ECIP projects and overseas MACOMS have been excluded from this analysis to avoid distortion. This analysis includes 58 installations with completed ECIP projects and 40 installations without completed ECIP projects, all within the United States. The combined total energy consumption is compared later against the rate of completion of ECIP projects using dollars and fiscal years.

TABLE 5
ECIP PROJECTS COMPLETED BY END FY 1980

PROGRAM YEAR	COMPLETED AT AT END OF FY 80 (\$)	REMAINING TO TO BE COMPLETED (\$)	NUMBER OF PROJECTS COMPLETED	NUMBER OF INSTALLATIONS WITH PROJECTS
FY 76	27,150,144	0	30	25
FY 77	44,816,956	0	57	40
FY 78	14,625,000	1,325,000	12	12
FY 79	6,198,000	38,577,000	16	13
FY 80	2,146,472	41,880,000	5	5
TOTAL	94,936,572	81,782,000	120	58*

* DUE TO SOME INSTALLATIONS HAVING PROJECTS IN MORE THAN ONE PROGRAM YEAR, THIS NUMBER IS NOT A MATHEMATICAL TOTAL.

In order to show the energy consumption in dollars, a value of \$23.25 per Army Barrel of Energy was used. This value was determined by data provided by MACOMS to DAEN-MPO-U as part of the FY80 Technical Data Report.

Figure 2 illustrates the composition or mix of the "Army Energy Barrel", which shows that of the total amount of fuel used by the Army, the major portion is electricity.

The "Army Barrel of Oil" Contains the Energy of a Barrel of Crude Oil (5.8 Million BTU's). Its Composition Represents the Various Fuel Used by the Army in its Operations of Buildings & Facilities.

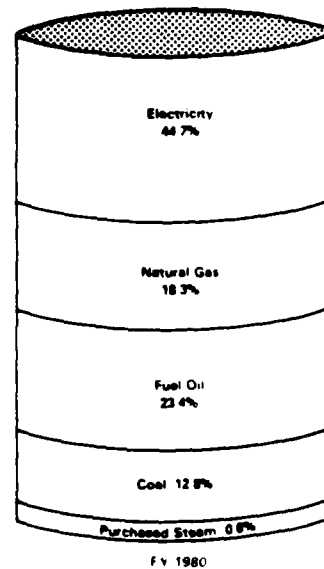


FIGURE 2
THE ARMY ENERGY BARREL
FY 1980 COST \$23.25/BARREL

Each type of fuel within the mix has increased in price, resulting in increased cost to the Army. The cost of the Army energy barrel in FY 1980 was \$23.25.

Using the value of \$23.25 per barrel equivalent and showing the combined total energy consumption (58 installations with ECIP projects) converted at that rate, a comparison is made in Figure 3 that shows the cumulative cost of retrofit projects and the cost of fuel consumed. The simple payback shows a 3.5 year payback.

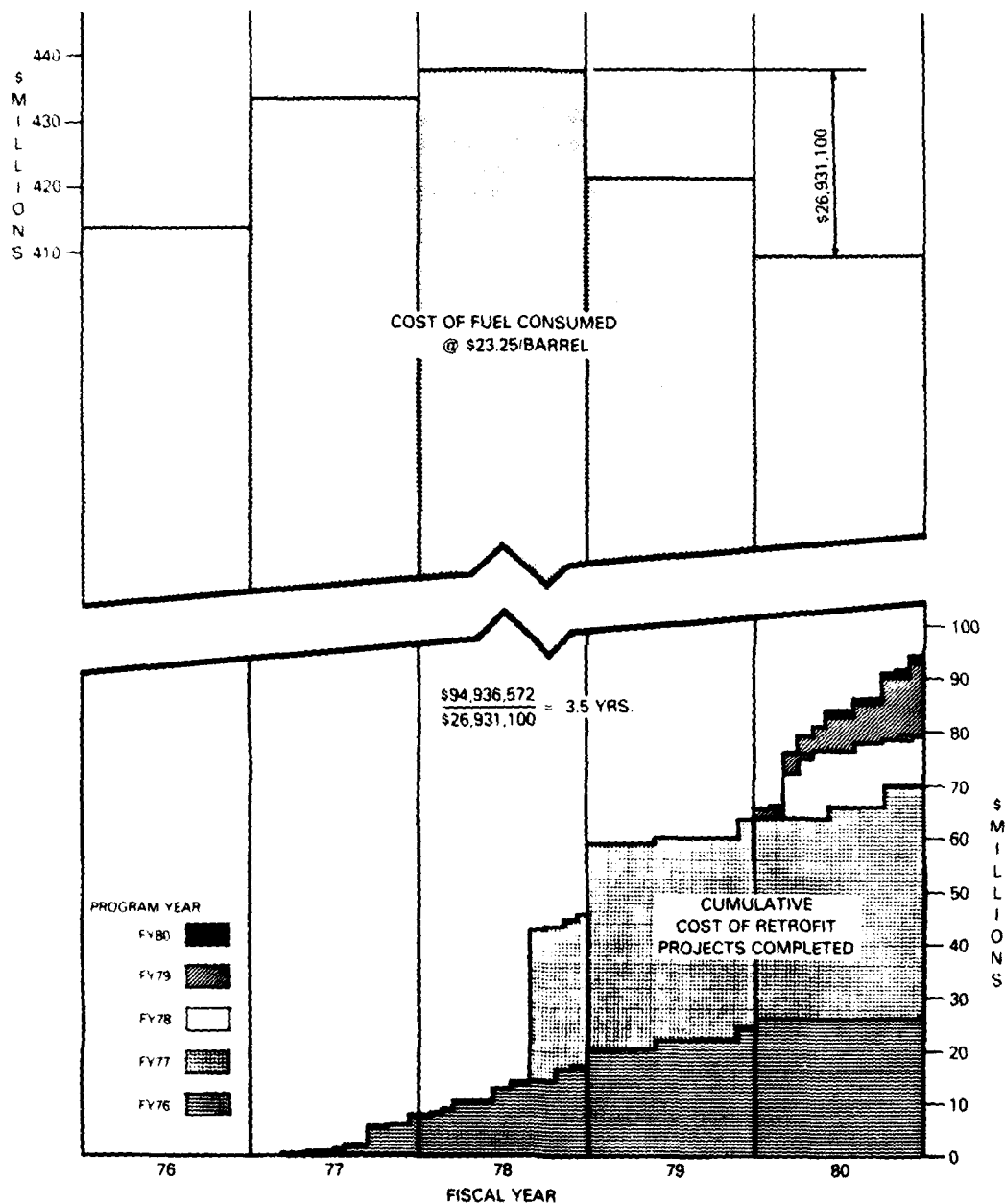


FIGURE 3

CUMULATIVE COST OF COMPLETED ECIP PROJECTS AND COST AVOIDANCE
OF REDUCED CONSUMPTION OF INSTALLATIONS WITH ECIP PROJECTS

Looking at the 98 installations in the two groups of installations with ECIP projects completed and installations without ECIP projects completed in Figure 4, shows more clearly the impact on installations with completed ECIP projects. The sharp downturn in energy consumption from FY 78 on is directly related to the rate of completed ECIP projects. The installations without ECIP projects continue at a level of increased energy consumption. A trend analysis, using FY 78 as the base year, shows a remarkable difference in the predicted behavior of the two groups. The group without ECIP projects is predicted to consume 15.6 percent more energy in FY 85, compared to FY 75, and the installations with ECIP projects is predicted to consume 19.9 percent less energy in FY 85, compared to FY 75.

Short of having "before and after" metered data for validation of ECIP projects, this group comparison strongly indicates that ECIP projects are successfully reducing energy consumption in a cost effective manner.

Other data also indicate better management of the ECIP. The FY 1976 ECIP projects were not completed for 51 months after the beginning of FY 1976. The FY 1977 ECIP projects were completed in 45 months. The more recent requirements by Congress to have advanced design prior to authorization and appropriation is resulting in shorter lead time to completion. The bottom portion of Figures 3 & 4 shows the first five program years of the completed ECIP projects and it shows that some FY 1979 projects were completed at the beginning of FY 1980 and two FY 1980 projects were completed within FY 1980.

There are ten general groupings of ECIP project types. Several projects include more than one type of project, but the primary type was used to classify projects into their respective types. The percentage of the completed program dollars and numbers of projects is shown on Figure 5. The largest percentage of dollars and the largest number of projects dealt with the building shell and included insulation, storm doors and storm windows. This was followed by modification of the HVAC systems and energy monitoring and control systems. The family housing ECIP projects included insulation, storm doors and windows, weatherstripping and set back thermostats. As noted previously, only seven projects, using 6 percent of the dollars, related directly to electrical energy savings.

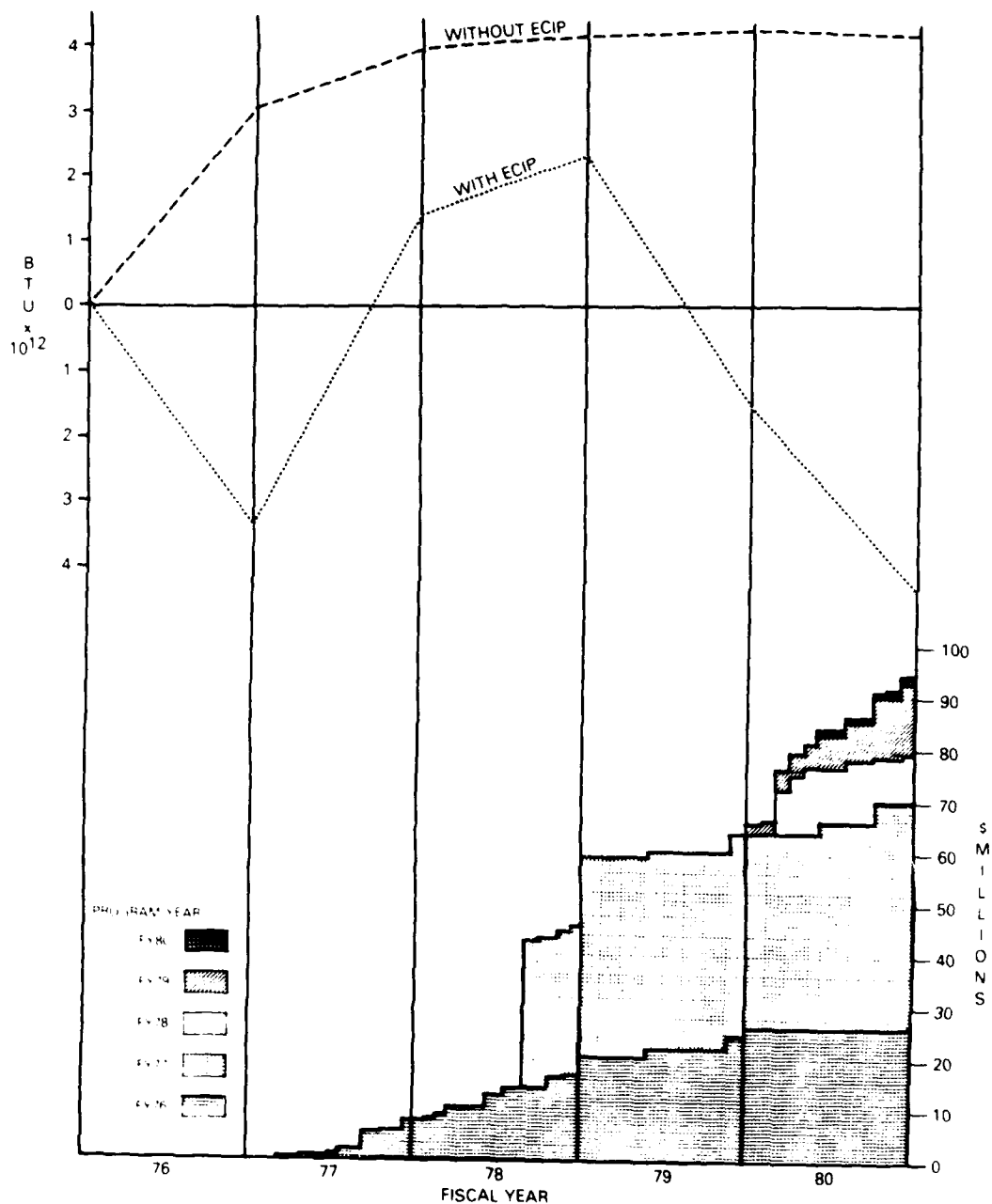


FIGURE 4
CUMULATIVE COST OF COMPLETED ECIP PROJECTS AND ANNUAL CHANGE
IN ENERGY CONSUMPTION OF INSTALLATIONS WITH AND WITHOUT ECIP PROJECTS

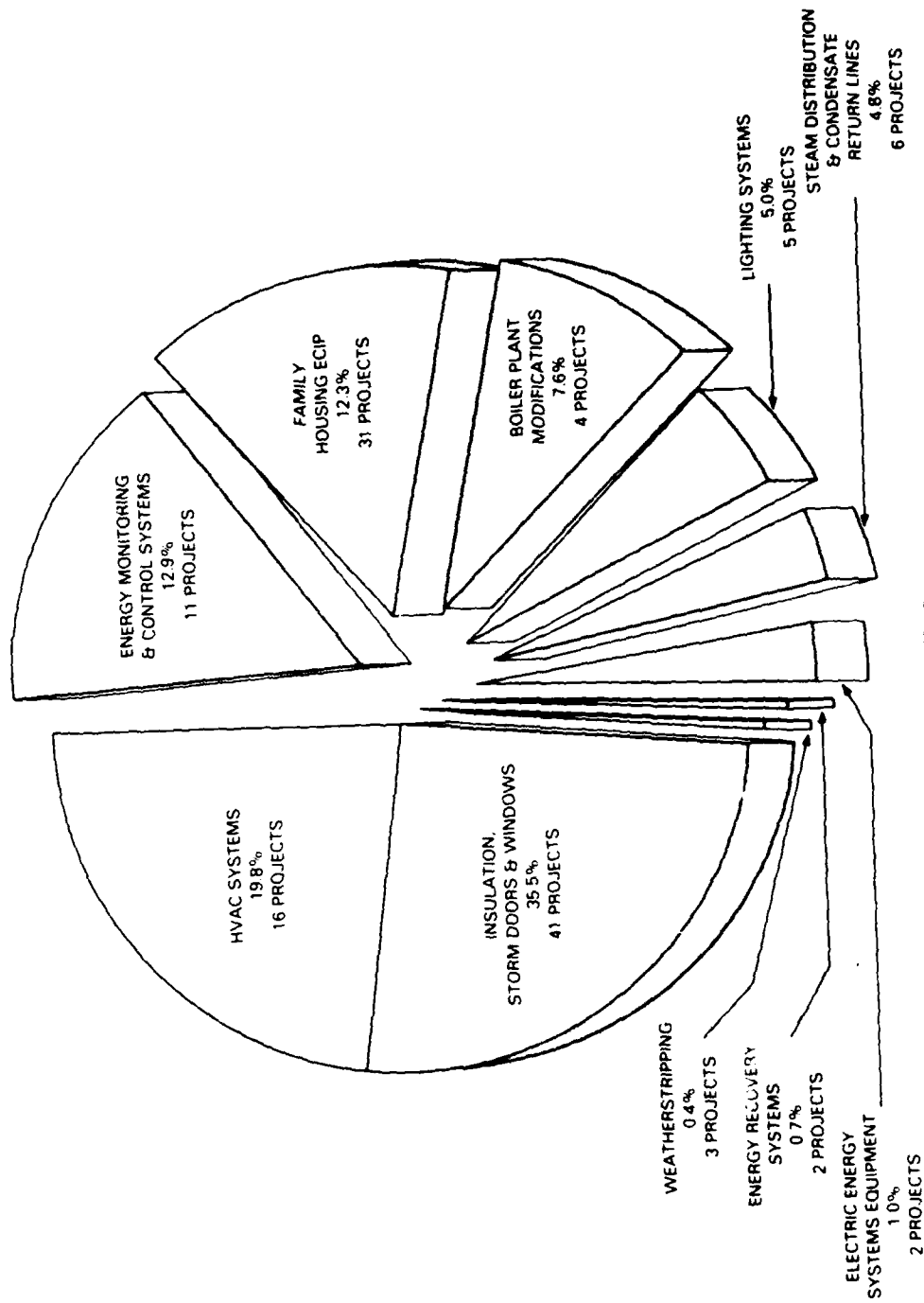


FIGURE 5

U.S. ARMY ENERGY CONSERVATION INVESTMENT PROGRAM
PERCENT DISTRIBUTION OF DOLLARS BY TYPE AND NUMBER OF PROJECTS

The extension of ECIP to overseas areas should have a significant impact on energy conservation in those areas. Figures 6a through 6d list each reporting installation in the "Red Book" and show the FY 75 and FY 80 total energy consumption. Through the use of symbols those installations with completed ECIP projects are readily comparable with those installations without ECIP projects. If the potential for conservation is greatest in installations consuming the largest quantity of energy then the overseas areas offer a lucrative target for building retrofits. The first four installations on Figure 6a consumed over 45 trillion BTU ($\text{BTU} \times 10^{12}$) in FY 80, almost one fourth the total Army consumption. The abscissa on Figures 6a through 6d changes in scale to provide a more meaningful display.

An evaluation of the ECIP would be incomplete without investigating the rate of energy consumption in retrofitted buildings. The energy consumption per gross square foot (BTU/GSF) has been analyzed using the same overview approach as the preceeding evaluation.

BTU/GSF is an indicator of building efficiency and was adopted by Executive Order 12003 as the primary indicator to measure energy conservation progress within Federal agencies. Table 6 lists the MACOMS and their FY 75 and FY 80 BTU/GSF and the percent deviation. Better progress is being made in meeting the BTU/GSF reduction goal than in meeting the overall energy reduction goal.

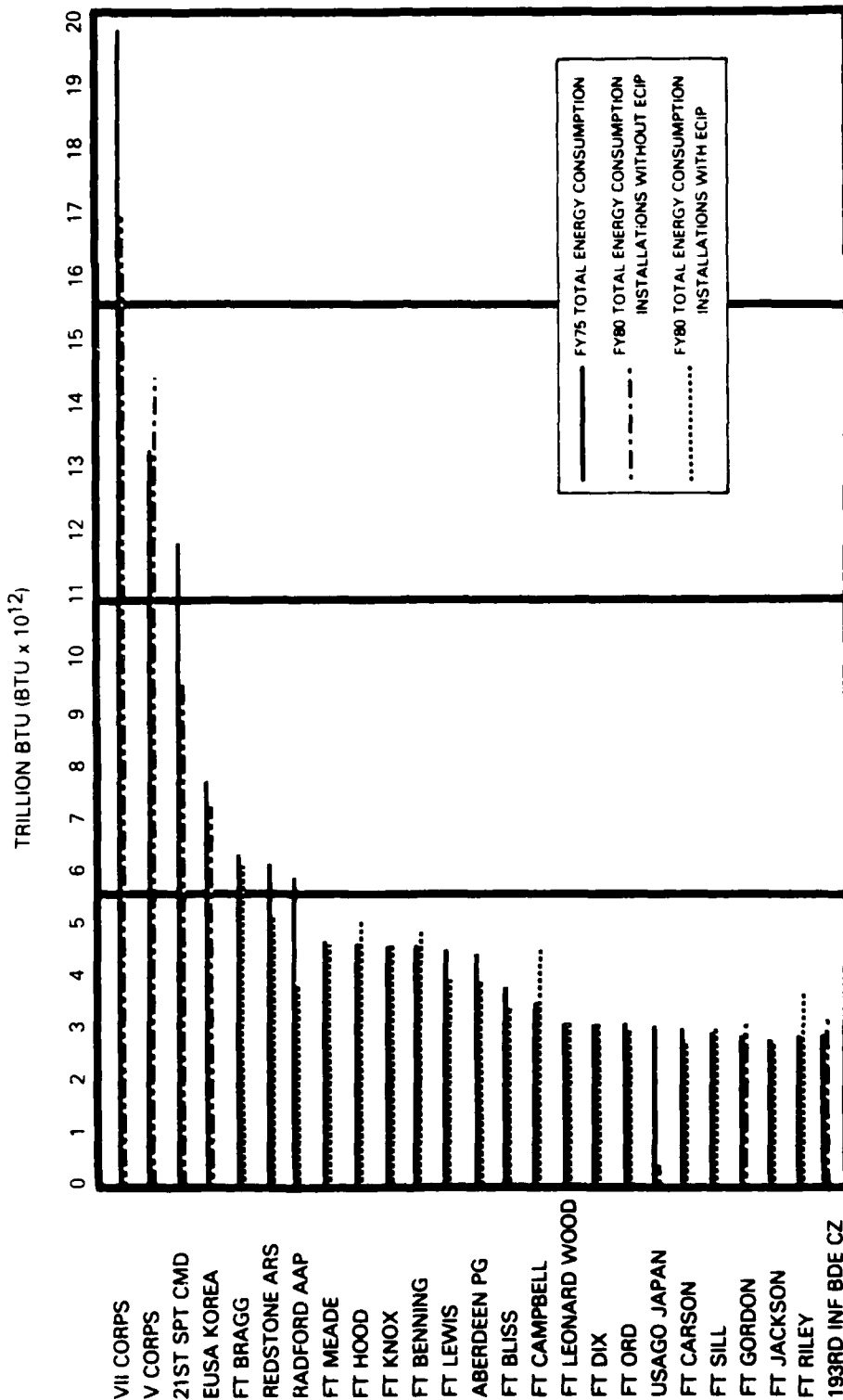


FIGURE 6A
FY75 & FY80
ENERGY CONSUMPTION BY INSTALLATION

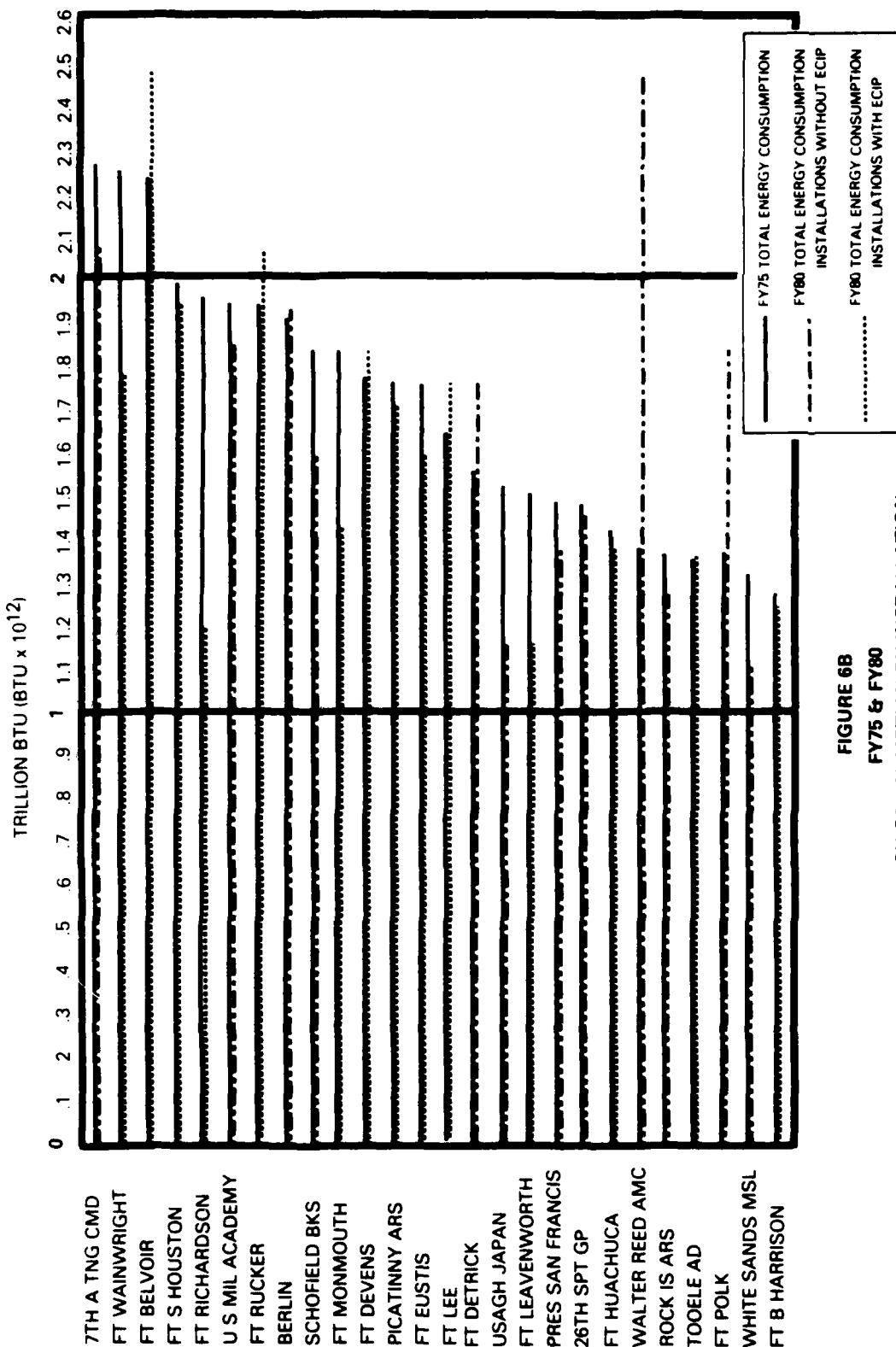


FIGURE 6B
FY75 & FY80
ENERGY CONSUMPTION BY INSTALLATION

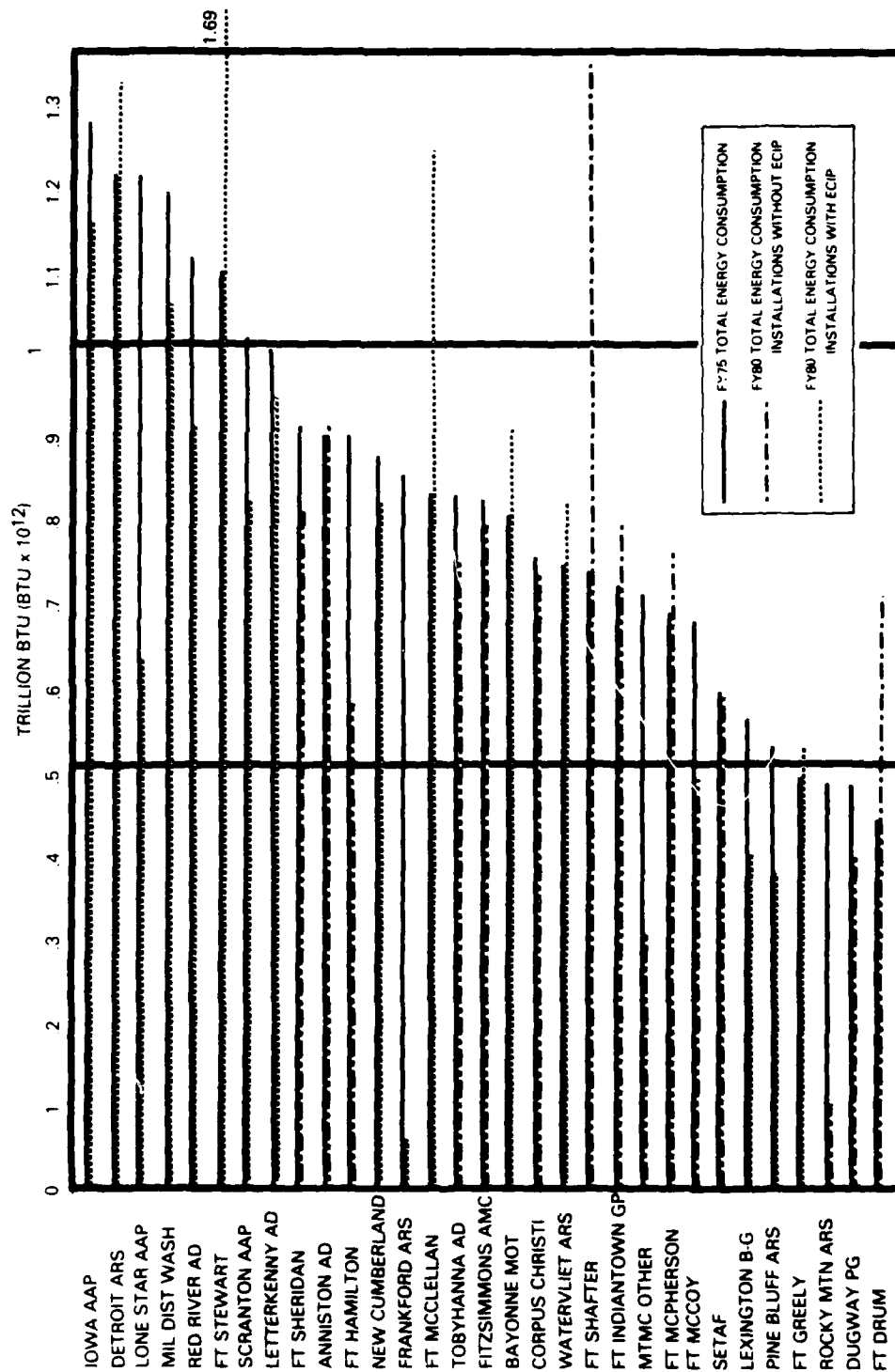


FIGURE 8C

FY75 & FY80

ENERGY CONSUMPTION BY INSTALLATION

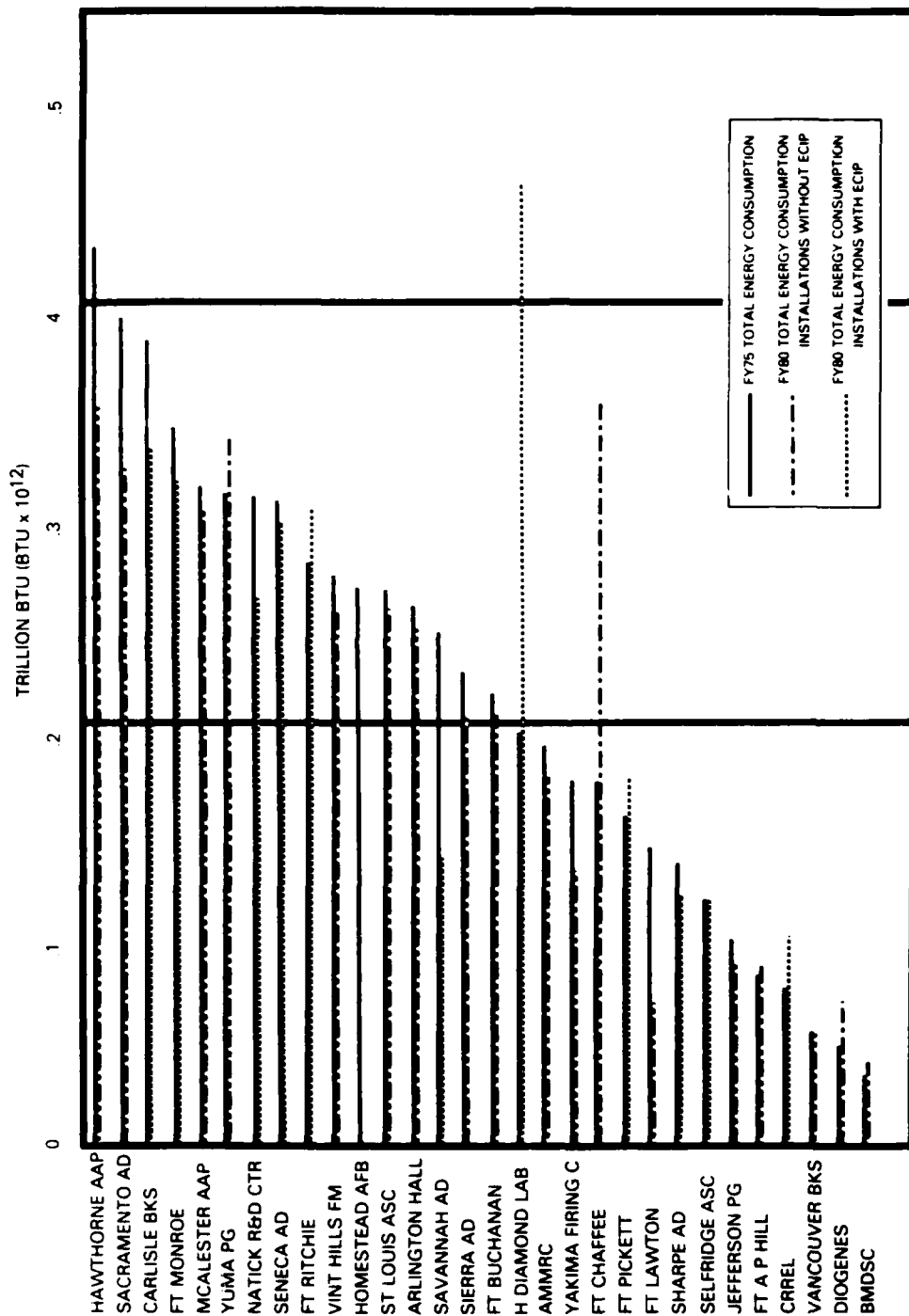


FIGURE 6D

FY75 & FY80
ENERGY CONSUMPTION BY INSTALLATION

TABLE 6

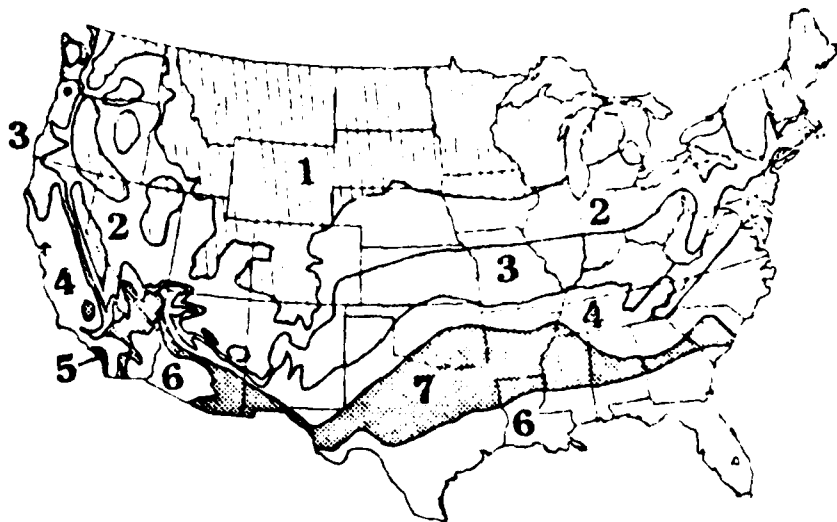
FY 75 & FY 80 ENERGY CONSUMPTION
PER GROSS SQUARE FOOT OF BUILDINGS

	BTU/GSF		PERCENT DEVIATION
	FY 75	FY 80	
WORLD-WIDE	217,025	188,643	-13.1
DARCOM	294,984	192,947	-34.6
OTHER	322,440	231,132	-28.3
DEPOTS	114,688	99,984	-12.8
GOCO	497,047	267,258	-46.2
FORSCOM	205,188	189,212	-7.8
USAREUR	174,930	159,489	-8.8
TRADOC	210,984	214,390	+1.6
EUSA	293,042	290,707	-0.8
USARJ	178,151	142,062	-20.2
HSC	497,789	485,879	-2.4
WESTCOM	146,498	119,729	-18.3
USMA	190,591	182,461	-4.3
ACC	186,735	177,246	-5.1
MTMC	107,454	130,813	+2.1
MDW	237,319	252,191	+6.3
INSCOM	240,650	237,861	-1.2
OCE	810,913	613,460	-24.3
BMDSC	12,075	15,290	+26.6

The United States has been divided into seven climate zones as a result of a joint study conducted by the Department of Housing and Urban Development and the Department of Energy. These zones were developed using average heating and cooling degree days. These zones are described and depicted in figure 7. Heating and cooling degree day data has been posted on the data sheets and were extracted from TM 5-785, dated 1 July 1978.

**Zone Descriptions in Heating (HDD) and Cooling (CDD)
Degree Days are:**

- Zone 1 - Less than 2000 CDD and more than 7000 HDD
- 2 - Less than 2000 CDD and 5500 to 7000 HDD
- 3 - Less than 2000 CDD and 4000 to 5499 HDD
- 4 - Less than 2000 CDD and 2000 to 3999 HDD
- 5 - Less than 2000 CDD and 0 to 1999 HDD
- 6 - More than 2000 CDD and 0 to 1999 HDD
- 7 - More than 2000 CDD and 2000 to 4000 HDD



**FIGURE 7
CLIMATIC ZONES IN THE
UNITED STATES**

The 98 installations used in the preceeding ECIP analysis are used again to provide a measure of difference between installations with and without completed ECIP projects. Two installations are deleted from this study, Hawthorne and McAlester AAP, because they were transferred to Army as of FY 78 from the U. S. Navy and no FY 75 data is available.

The remaining 96 installations are grouped by climatic zones and their BTU/GSF plotted for FY 75 and FY 80 into two groups, with and without ECIP projects. Figure 8 shows the comparison and the tabulation shows the significant weighting factors for each zone and group. Overall, installations with ECIP projects reduced their BTU/GSF by 8.2 percent compared to a 3.6 percent reduction for installations without ECIP projects.

Overseas locations have been classified according to the climatic zone descriptions and Table 7 shows these installations along with the stateside groups. By and large, overseas locations compare most favorably and the 8.8 percent overseas reduction matches that of the consolidated USAREUR. The overall energy consumption overseas has been reduced 10.9 percent from FY 75, including USARJ. Excluding USARJ for reasons discussed on page 9, overseas locations reduced their overall energy consumption by 6.6 percent.

It perhaps should be reiterated that the DARCOM GOCO installations are not included in this analysis, except when they have completed ECIP projects. The consolidated GOCO data sheet shows a 46.2 percent reduction in BTU/GSF.

The dollars spent in completing ECIP projects through FY 80 have been distributed to the MACOMS as recorded in Table 8.

It is interesting to note that the completed ECIP projects, spread over the entire gross size of the 58 installations receiving them, amounts to 20 cents per gross square foot. Not an accurate or usable number, but interesting.

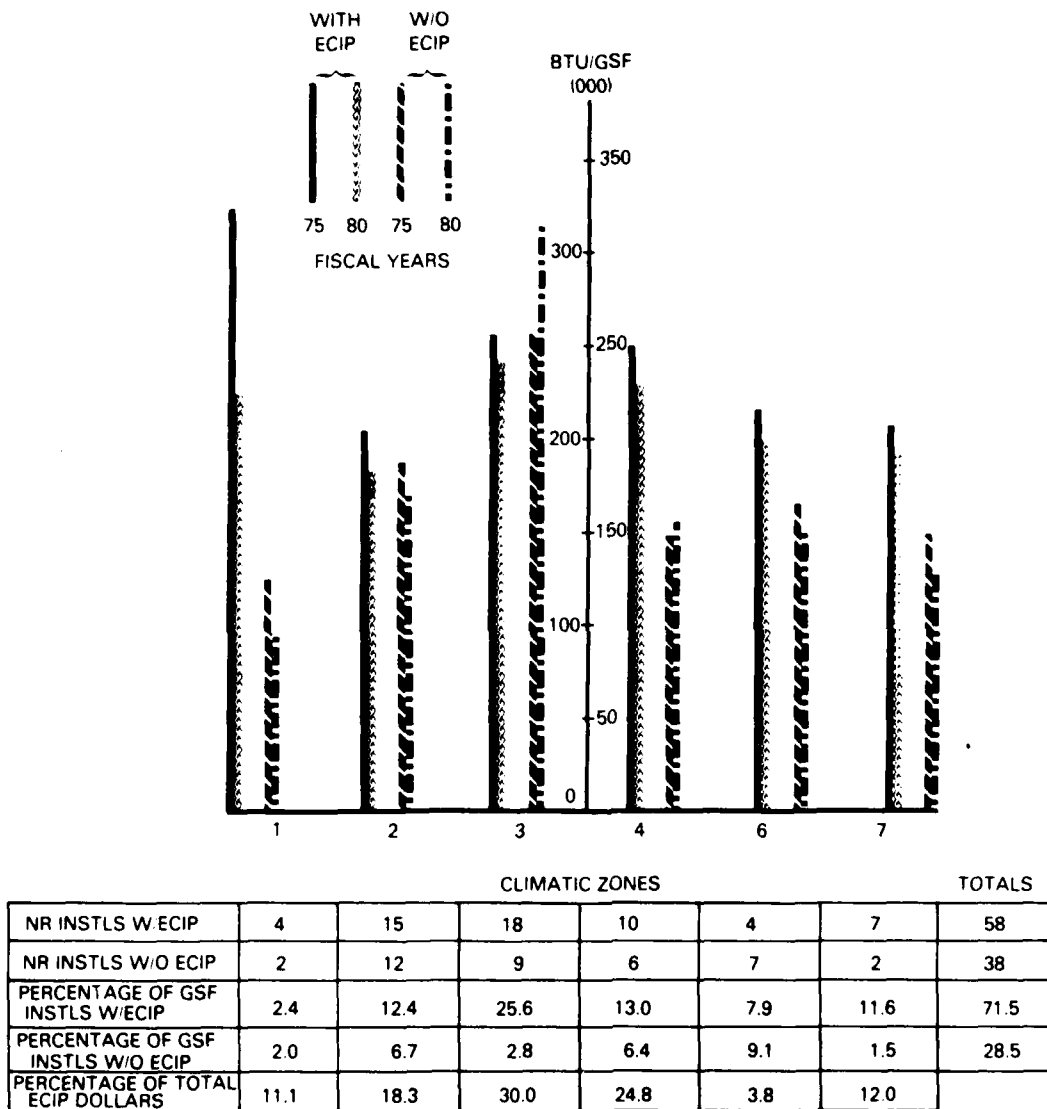


FIGURE 8

ENERGY CONSUMPTION PER GROSS SQUARE FOOT
BY CLIMATIC REGIONS AND INSTALLATIONS
WITH AND WITHOUT ECIP PROJECTS

TABLE 7

BTU/GSF COMPARISONS BY CLIMATIC ZONE DESCRIPTIONS BETWEEN
U. S. INSTALLATIONS (WITH AND WITHOUT ECIP) AND OVERSEAS LOCATIONS

ZONE	WITH ECIP			WITHOUT ECIP		
	FY 75	FY 80	PD	FY 75	FY 80	PD
1	321,788	221,786	-31.1	123,613	92,922	-24.8
7th ATC				182,170(FY 77)	162,440	-10.8
2	204,110	182,739	-10.5	185,925	167,602	- 9.9
BERLIN				168,643	158,255	- 6.2
V CORPS				188,474	169,115	-10.3
VII CORPS				180,215	165,551	- 8.1
21st SPT CMD				155,721	138,617	-11.0
3	255,579	242,947	- 4.9	255,637	313,540	+22.7
EUSA-KOREA				293,042	290,707	- 0.8
4	248,845	228,150	- 8.3	147,825	155,064	+ 4.9
USAGH-JAPAN				158,402	137,016	-13.5
SETAF				157,905	125,806	-20.3
6	214,948	198,827	- 7.5	165,024	150,641	- 8.7
USAGO-JAPAN				191,674	303,095	+58.1
BMDSC				12,075	15,290	+26.6
7	206,388	192,918	- 6.5	149,809	127,158	-15.1
TOTAL U.S.	236,092	216,632	- 8.2	172,814	166,592	- 3.6
TOTAL OVERSEAS				182,988	166,953	- 8.8

TABLE 8
DISTRIBUTION OF ECIP \$
BY MACOM

	ECIP \$	PERCENT OF TOTAL	NUMBER OF INSTAL- LATIONS WITH ECIP	AVERAGE ECIP \$ PER INSTALLATION
TRADOC	39,696,502	41.8	17	2,335,088
FORSCOM	35,273,196	37.2	14	2,519,514
DARCOM	18,640,594	19.6	22	847,300
DEPOTS	(10,080,350)	(10.6)	(8)	(1,260,044)
GOCO	(1,405,000)	(1.5)	(4)	(351,250)
OTHER	(7,155,244)	(7.5)	(10)	(715,524)
ACC	971,568	1.0	2	485,784
MTMC	128,000	0.1	1	128,000
MDW	120,000	0.1	1	120,000
OCE	106,712	0.1	1	106,712
TOTAL	94,936,572	100	58	1,636,837

APPENDIX A

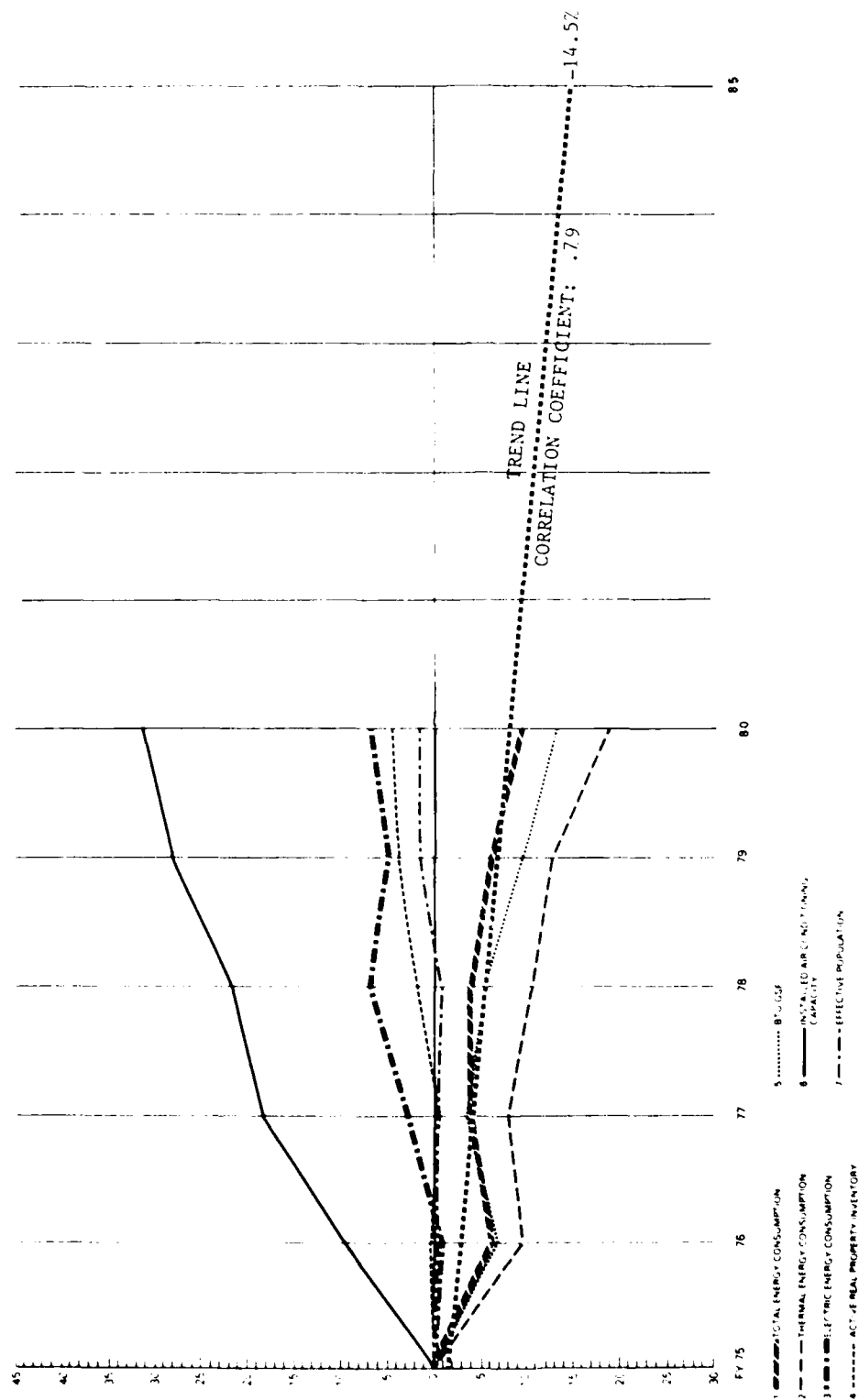
This Appendix consists of a Data Sheet and a Graph for each reporting Installation in the Red Book and for each MACOM.

The graphs display 7 key data elements for the fiscal years 1975 through 1980. The zero line is the FY 75 base and the ordinate is the percent change from FY 75 for each subsequent year. The trend line represents the Total Energy Consumption from FY 75 through FY 80, with the trend analysis prediction for FY 85.

The Data Sheets contain the raw data from the Red Book for the same years and selected performance indicators. The Installation Data Sheets contain the real property breakdown by categories, in addition to the above data.

The remarks section on the Data Sheets is used to identify any organizational changes and any ECIP projects completed along with a triangle symbol across the top of the sheet to indicate the point in time when these projects were completed. The ECIP remarks and symbols were repeated on the Graphs and offer visual impact of the completed ECIP projects.

World-wide Consolidation



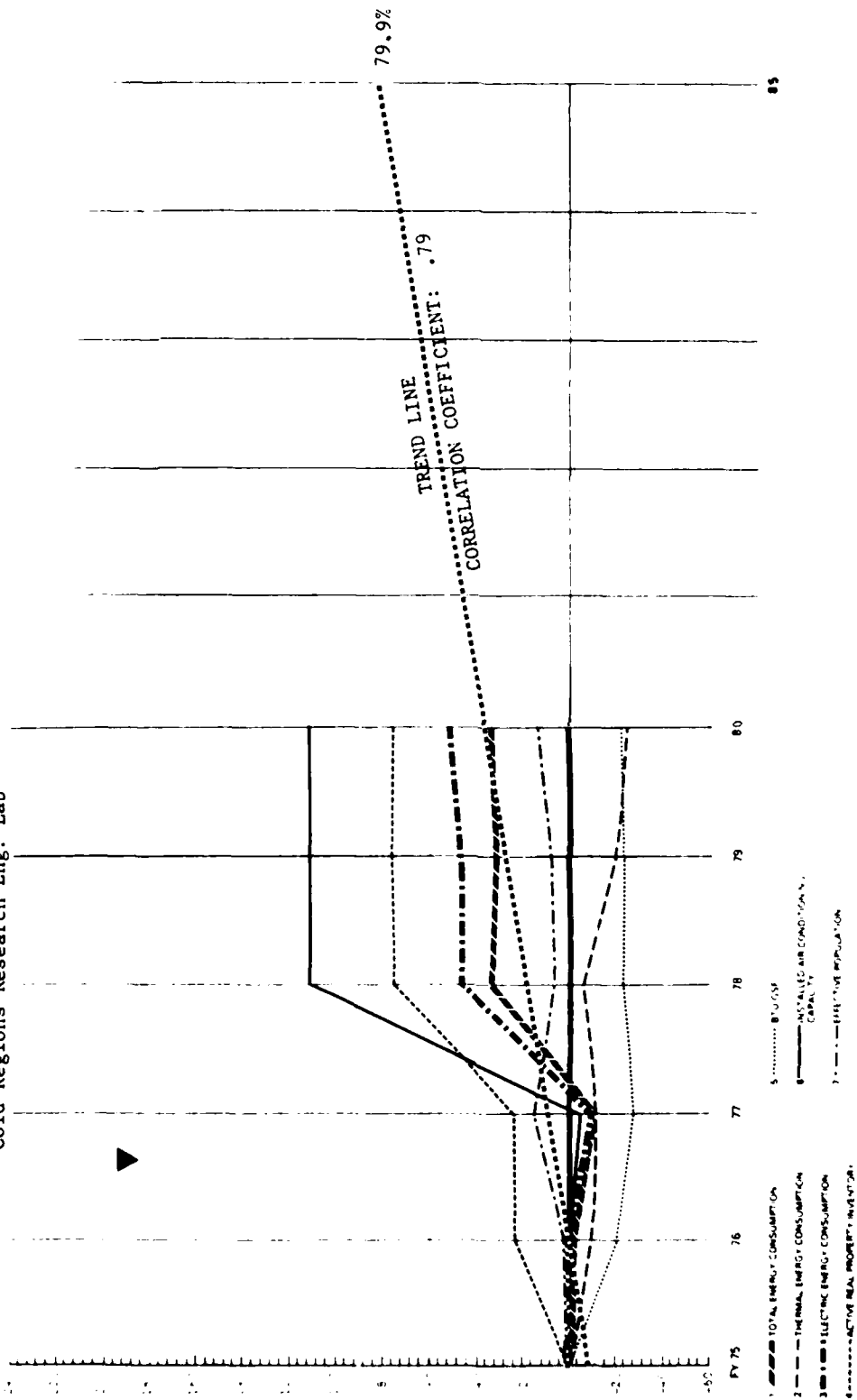
WALSH

	1975-76	76	77	78	79	80
1 Energy Consumption in GWh	13,521,257	13,521,257	13,521,257	13,521,257	13,521,257	13,521,257
2 Thermal En. Conv. in MW	2,222,222	2,222,222	2,222,222	2,222,222	2,222,222	2,222,222
3 Electrical En. Conv. in MW	2,222,222	2,222,222	2,222,222	2,222,222	2,222,222	2,222,222
4 Residential Population in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
5 Non-Residential Population in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
6 Population Services in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
7 Effective Population in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
8 En. Consumption/Pop. Served in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
9 En. Consumption/Pop. in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
10 En. Consumption/Pop. in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
11 Installed En. Capacity in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
12 Total Energy Ton of Air Cond. in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
13 Heat Products Inventory (MWh) in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
14 Energy Received Population	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
15 Energy Consumption/GSP in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
16 Thermal En. Consumption/GSP in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
17 Electrical En. Consumption/GSP in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
18 Thermal En. Consumption/GSP in PD	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
19 En. by Category	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
20 Training	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
21 Maintenance & Production	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
22 Research, Development & Testing	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
23 Storage	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
24 Other Central Storage	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
25 Recycling & Salvage	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
26 Administration	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
27 Building Housing	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
28 Community Facilities	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
29 Family Housing	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
30 Operational Bus Stops	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111
31 Urban Buildings	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111	1,111,111

... in Pop. A. Bureaux : 17 Non Residents

Summary

Cold Regions Research Eng. Lab



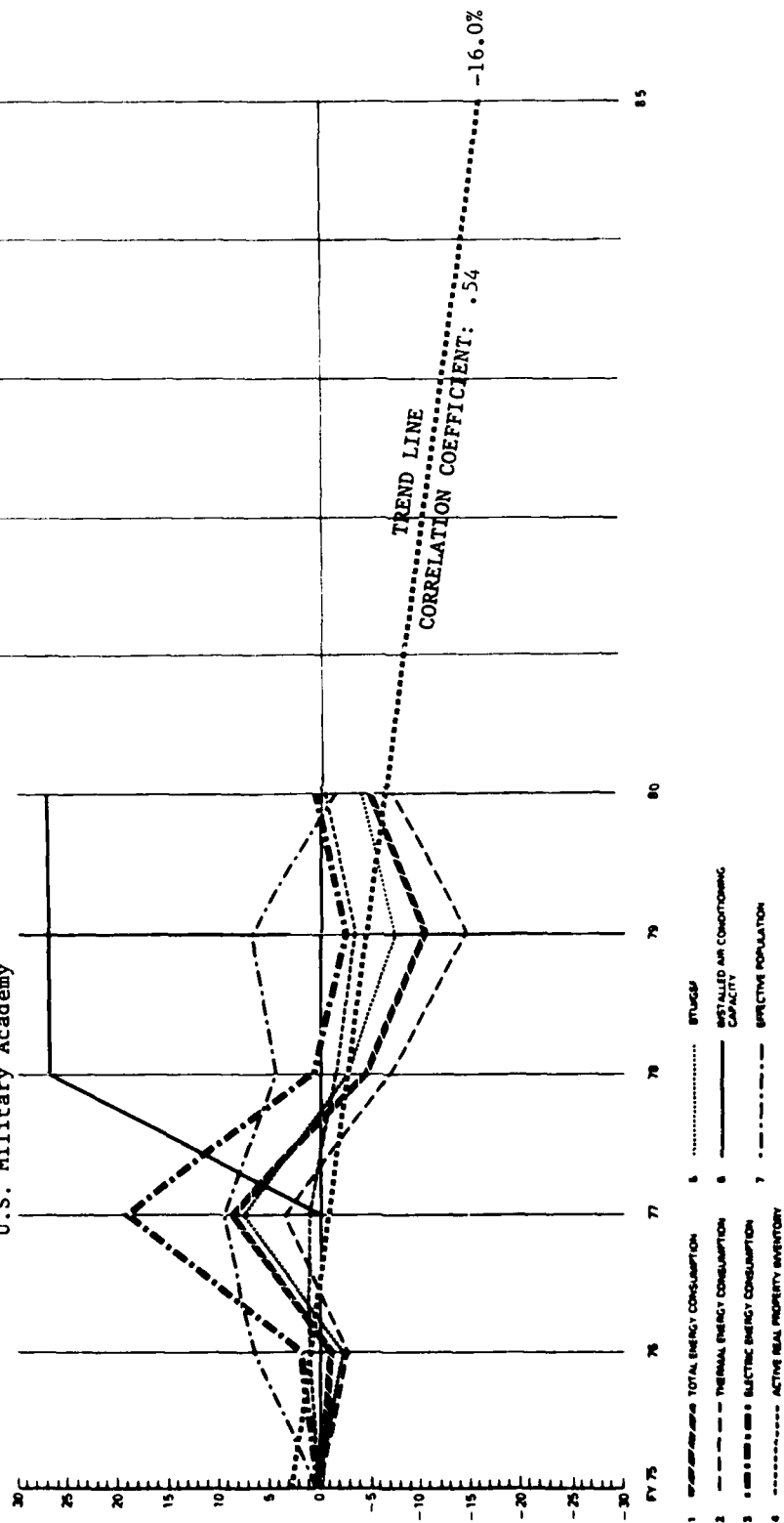
UNIT/SA	75	76	77	78	79	80
1 Energy Consumption (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
2 Thermal En. Cons. (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
3 Electrical En. Cons. (Kwh)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
4 Resident Population (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
5 Non-Resident Population (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
6 Population Served (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
7 Effective Population (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
8 En. Consumption/Pop. Served (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
9 En. Consumption/Pop. Served (Kwh)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
10 Electric En. Consumption/Resident Population	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
11 Insulated Air Cond. Capacity (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
12 Elec. Emerg. Ton of Air Cond. (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
13 Res. Property Inventory (Btu & Kwh)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
14 Res. Property Inventory (Btu & Kwh)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
15 Energy Consumption/GSF (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
16 Thermal En. Consumption/GSF (Btu)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
17 Electrical En. Consumption/GSF (Kwh)	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
18 Btu by Category	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224	1,424,224
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Covered Storage						
Hospital & Medical						
Administrative						
Bachelor Housing						
Community Facilities						
Family Housing						
Operational Buildings						
Other						

**Population Served is the total Resident & Non-Resident Population

75 = Percent Conversion from Base Year

REMARKS

U.S. Military Academy



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION U.S. MILITARY ACADEMY, VT. MACOM USMA CLIMATIC REGION HDD, DD, COD

UNIT/STY	P5	P6	P7	P8	P9	P10	P11
1 Energy Consumption in PD	1,935,933	1,935,933	1,935,933	1,935,933	1,935,933	1,935,933	1,935,933
2 Thermal En Cons in PD	1,410,455	1,410,455	1,410,455	1,410,455	1,410,455	1,410,455	1,410,455
3 Electrical En Cons in PD	635,506	635,506	635,506	635,506	635,506	635,506	635,506
4 Resident Population in PD	11,532	11,532	11,532	11,532	11,532	11,532	11,532
5 Non-Resident Population in PD	3,136	3,136	3,136	3,136	3,136	3,136	3,136
6 Population Served** in PD	14,668	14,668	14,668	14,668	14,668	14,668	14,668
7 Effective Population*** in PD	12,592	12,592	12,592	12,592	12,592	12,592	12,592
8 En Consumption/Pop Served in PD	132.1	132.1	132.1	132.1	132.1	132.1	132.1
9 En Consumption/Pop in PD	154.5	154.5	154.5	154.5	154.5	154.5	154.5
10 Electric En Consumption/Resident Population	5,165	5,165	5,165	5,165	5,165	5,165	5,165
11 Installed Air Cond Capacity in PD	218.5	218.5	218.5	218.5	218.5	218.5	218.5
12 Elec Energy/Ton of Air Cond in PD	10,210	10,210	10,210	10,210	10,210	10,210	10,210
13 Heat Property Inventory (Btu) in PD	190,591	190,591	190,591	190,591	190,591	190,591	190,591
14 Btu/Effective Population	128,347	128,347	128,347	128,347	128,347	128,347	128,347
15 Energy Consumption/GSF in PD	8,234	8,234	8,234	8,234	8,234	8,234	8,234
16 Thermal En Consumption/GSF in PD	948	948	948	948	948	948	948
17 Electrical En Consumption/GSF in PD	363	363	363	363	363	363	363
18 Btu by Category							
Training	752	752	752	752	752	752	752
Maintenance & Production	166	166	166	166	166	166	166
Research Development & Testing	401	401	401	401	401	401	401
Storage	2,531	2,531	2,531	2,531	2,531	2,531	2,531
Other Covered Storage	1,989	1,989	1,989	1,989	1,989	1,989	1,989
Hospital & Medical	3,297	3,297	3,297	3,297	3,297	3,297	3,297
Administration	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Bachelor Housing	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Community Facilities	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Family Housing	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Operational Buildings	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Utility Buildings	1,141	1,141	1,141	1,141	1,141	1,141	1,141
Other	1,141	1,141	1,141	1,141	1,141	1,141	1,141

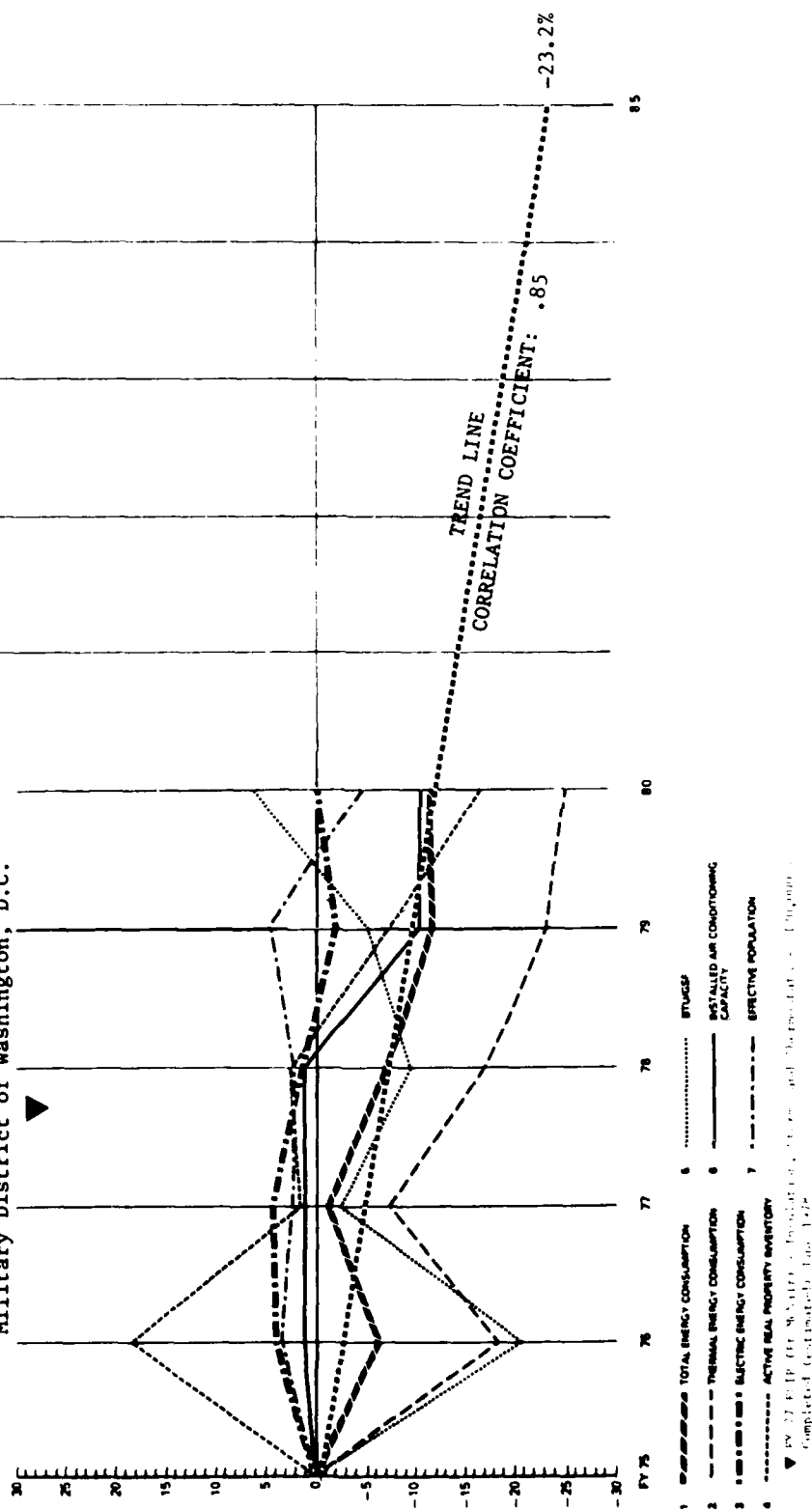
*PD is Percent Deviation from Base Year

**Population Served is the total Resident & Non-Resident Population

***Btu Pop is Resident + 1/2 Non-Resident

REMARKS

Military District of Washington, D.C.



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION CLIMATE REGION 1 HDD 3,111 CDD 1,115

UNIT/STY	75	76	77	78	79	80
1 Energy Consumption to PD	1,182,321	1,107,525	1,169,548	1,099,153	1,402,822	1,322,000
2 Thermal En. Cons. to PD	541,868	441,010	502,908	450,651	521,009	408,274
3 Electrical En. Cons. to PD	638,453	666,515	666,640	648,500	881,813	913,726
4 Resident Population to PD	5,292	5,296	5,120	5,120	5,455	4,155
5 Non-Resident Population to PD	22,810	29,160	29,160	29,160	29,160	29,160
6 Population Served** to PD	31,122	34,456	34,280	34,280	34,615	33,315
7 Effective Population*** to PD	14,574	15,081	14,902	14,902	15,242	14,154
8 En. Consumption/Pop Served to PD	31.7	32.0	31.9	31.9	31.9	31.2
9 En. Consumption/Pop to PD	81.1	71.4	78.5	77.7	76.1	75.1
10 Electric En. Consumption/Resident Population	120.5	125.5	130.2	126.7	135.7	131.6
11 Installed Air Cond Capacity to PD	9,066	9,166	9,166	9,166	9,166	9,166
12 Electric Energy/Ton of Air Cond to PD	70.4	72.5	72.7	70.8	77.1	79.7
13 Real Property Inventory (RPI) to PD	4,982	5,900	5,055	5,120	4,625	4,172
14 RPI/Effective Population	16	19	14	14	10	10
15 Energy Consumption/GSF to PD	237,319	187,216	211,365	214,628	225,421	255,191
16 Thermal En. Consumption/GSF to PD	109,162	75,086	90,487	88,018	90,168	98,678
17 Electrical En. Consumption/GSF to PD	128,157	112,130	111,878	126,610	135,253	156,513
18 RPI by Category						
Training	4001	194	380	380	346	366
Maintenance & Production	195	245	290	290	346	325
Research, Development & Testing						
Storage	520	612	418	418	266	8
Other Central Storage						
Hospital & Medical	83	95	66	66	67	363
Administration	813	1,607	869	869	929	67
Residence Housing	1,173	1,153	747	747	982	913
Community Facilities	857	890	1,404	1,404	788	944
Family Housing	588	588	588	651	575	968
Quartermaster Bldgs	196	95	95	95	65	571
Utility Buildings	129	220	220	220	246	62
Other						
Non Available						
Non Available						

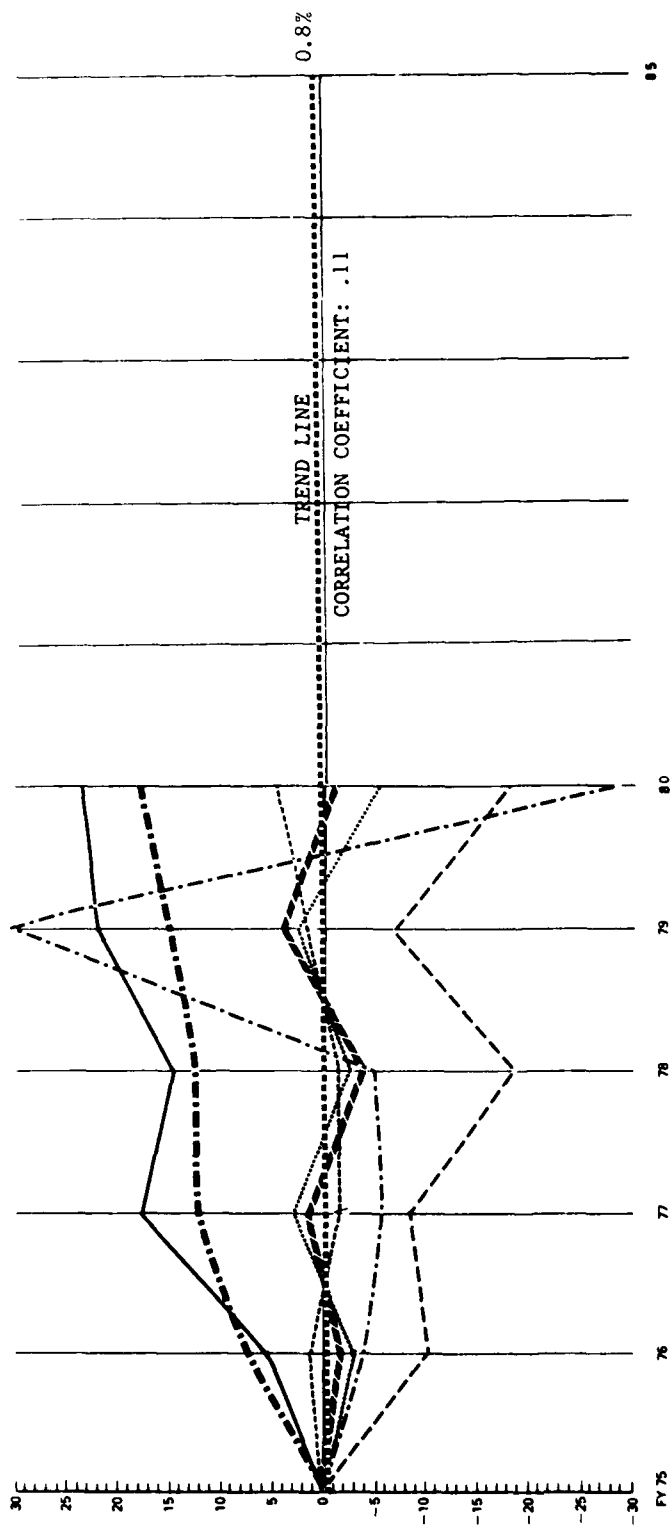
Population Served is the Total Resident & Non-Resident Population *RPI Pop is Resident + 1/2 Non-Resident

Includes Cameron Station, VA., Ft. Myer, VA., and Ft. McNair, Washington, DC.

▼ FY 77 ECIP (Ft. McNair) - Insulation, Storms and Thermostats - \$120,000 - Completed (estimated) June 1978

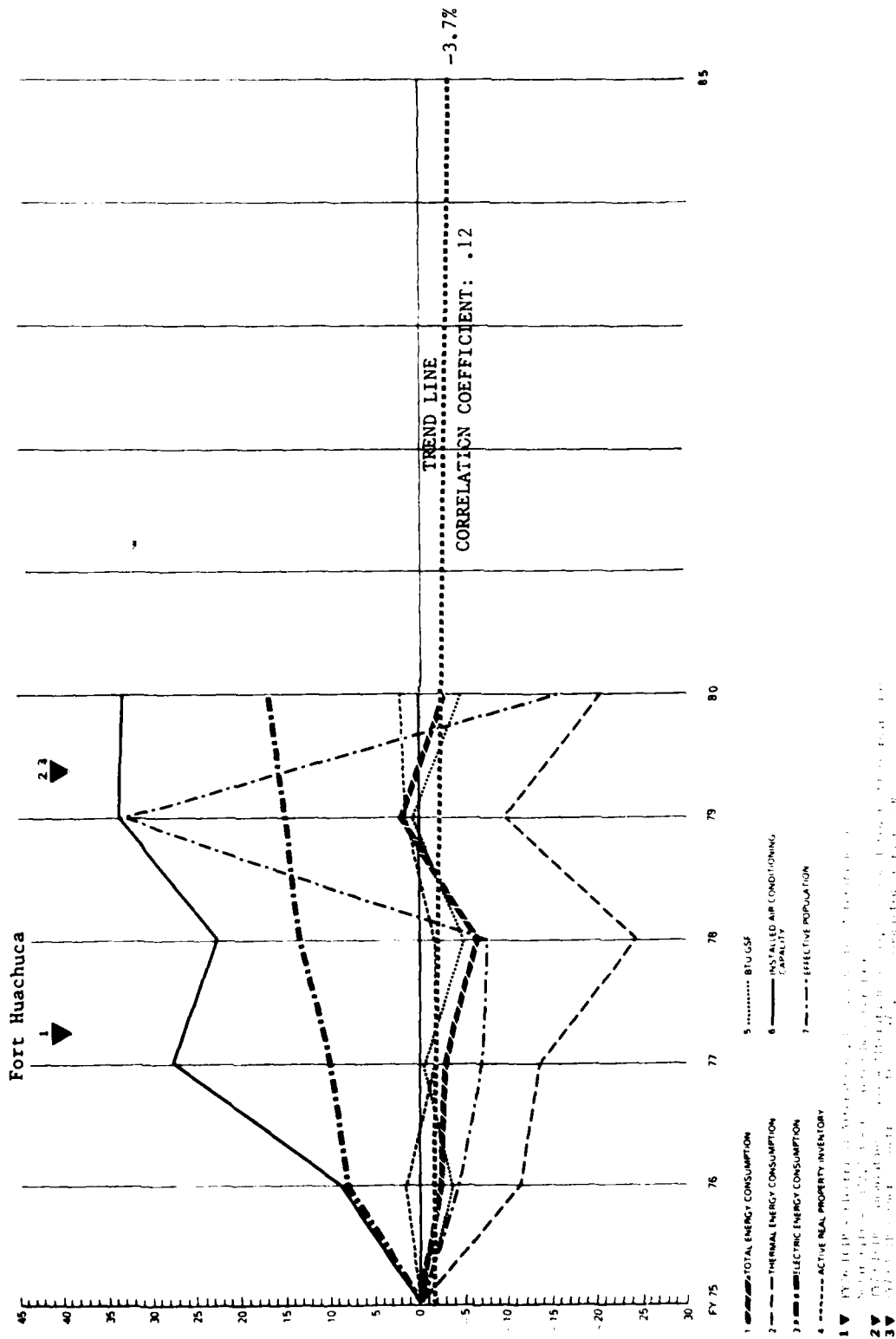
REMARKS

Army Communications Command



1980 - Student Election from First Year

5. CONCLUSIONS



UNITARY	75	76	77	78	79	80
WRTU	1,200,227	1,200,075	1,200,075	1,200,075	1,200,075	1,200,075
WRTU	252,876	252,876	252,876	252,876	252,876	252,876
WRTU	667,487	667,487	667,487	667,487	667,487	667,487
PEOPLE	11,427	11,427	11,427	11,427	11,427	11,427
PEOPLE	4,572	4,572	4,572	4,572	4,572	4,572
PEOPLE	16,411	16,411	16,411	16,411	16,411	16,411
PEOPLE	11,163	11,163	11,163	11,163	11,163	11,163
WRTU/CAP	86.6	86.6	86.6	86.6	86.6	86.6
WRTU/CAP	106.1	106.1	106.1	106.1	106.1	106.1
WRTU/CAP	514.1	514.1	514.1	514.1	514.1	514.1
TONS	4,014	4,014	4,014	4,014	4,014	4,014
WRTU/TON	1,653.1	1,653.1	1,653.1	1,653.1	1,653.1	1,653.1
WRTU/TON	7,100	7,100	7,100	7,100	7,100	7,100
WRTU/CAP	55	55	55	55	55	55
BTU/GSF	194,586	194,586	194,586	194,586	194,586	194,586
BTU/GSF	103,131	103,131	103,131	103,131	103,131	103,131
BTU/GSF	91,455	91,455	91,455	91,455	91,455	91,455
WRTU	416	416	416	416	416	416
WRTU	419	419	419	419	419	419
WRTU	111	111	111	111	111	111
WRTU	138	138	138	138	138	138
WRTU	170	170	170	170	170	170
WRTU	763	763	763	763	763	763
WRTU	1,508	1,508	1,508	1,508	1,508	1,508
WRTU	64.9	64.9	64.9	64.9	64.9	64.9
WRTU	2,720	2,720	2,720	2,720	2,720	2,720
WRTU	55	55	55	55	55	55
WRTU	70	70	70	70	70	70
WRTU	14	14	14	14	14	14

*PD is Percent Deviation from Base Year **Population Served is the total Resident & Non Resident Population ***EP Pop & Resident & VJ Non Resident

1. WRTU 76 WRTU - Electrical Alterations, Cooling System Alterations and Solar Film - \$172,773 - Completed December 1976

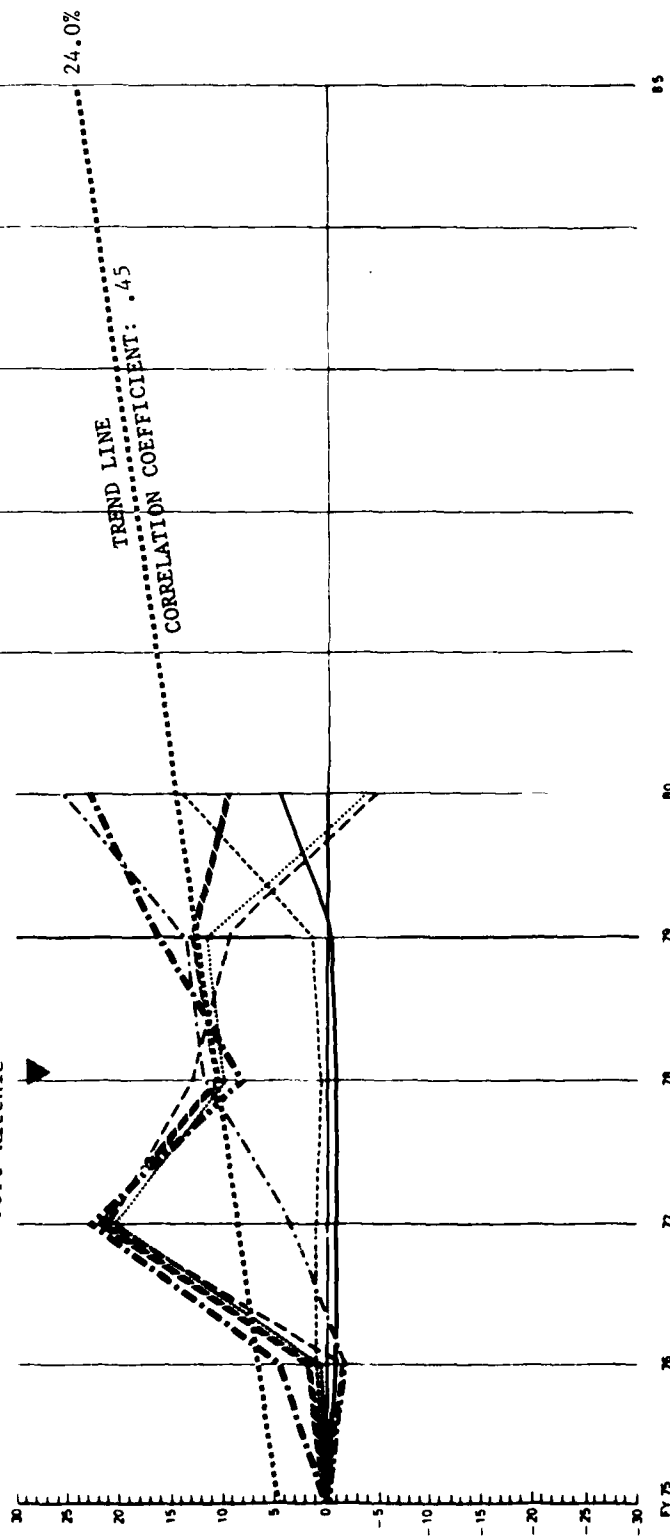
2. WRTU 79 WRTU - Insulation & Window Alterations - \$55,000 - Completed (estimated) February 1980

3. WRTU 79 WRTU - Energy Control System - \$478,000 - Completed February 1980

REMARKS

Other

Fort Ritchie



U S Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - ET. PITCHER, MD. MACOM ALC CLIMATIC REGION - HDD 5,492 CDD 682

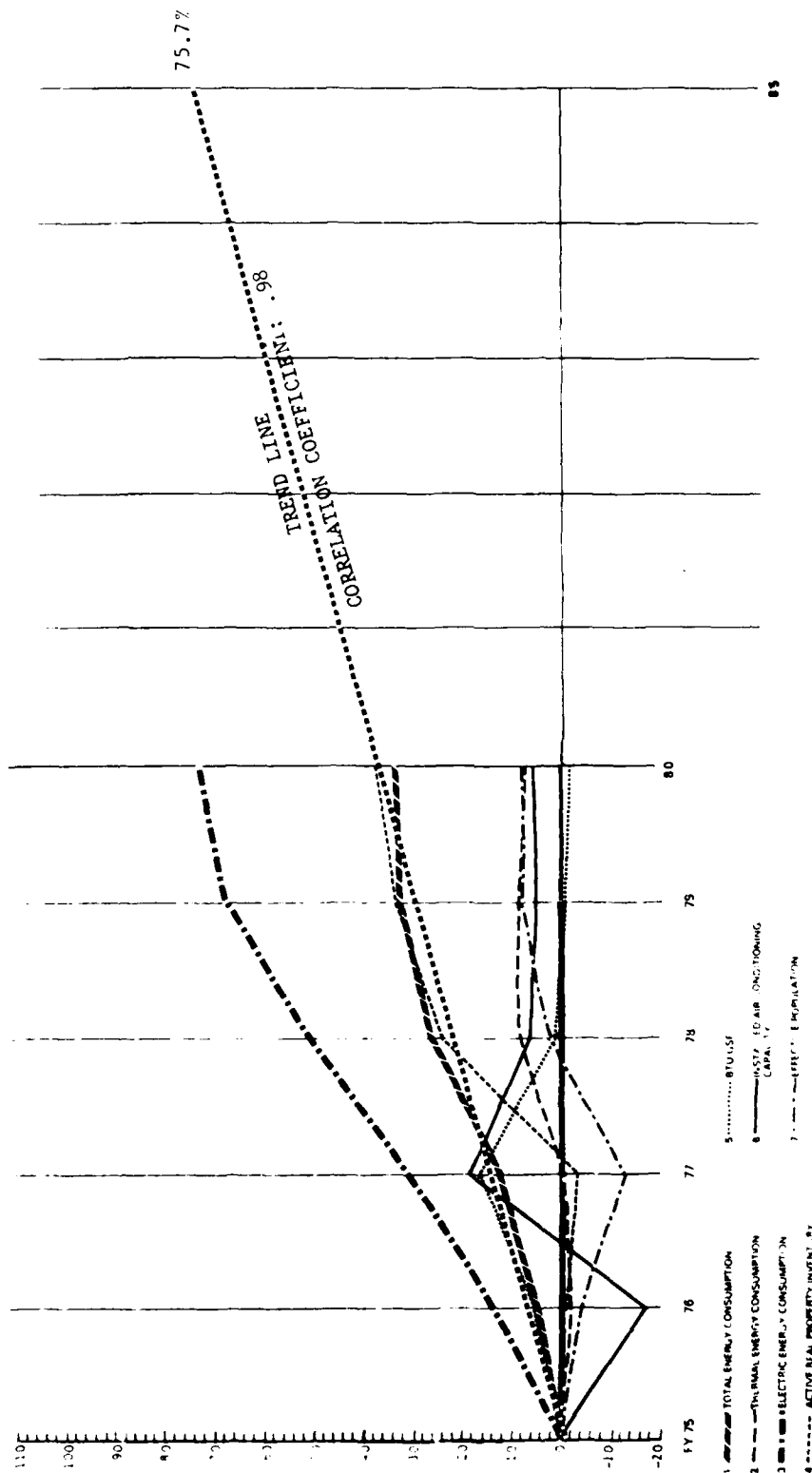
UNITS/yr	75	76	77	78	79	80
1 Energy Consumption Is PD	226,154	290,604	338,005	305,276	311,002	311,002
2 Thermal En Cons Is PD	135,950	141,455	154,510	151,635	154,000	154,000
3 Electrical En Cons Is PD	140,265	146,249	152,330	151,625	157,002	157,002
4 Resident Population Is PD	1,202	1,432	1,432	1,408	1,435	1,435
5 Non Resident Population Is PD	1,431	1,431	1,431	1,431	1,431	1,431
6 Population Served** Is PD	1,555	1,547	1,547	1,547	1,547	1,547
7 Effective Population*** Is PD	2,310	2,243	2,243	2,243	2,243	2,243
8 En Consumption/Pop Served Is PD	78.3	80.7	81.2	80.6	81.2	81.2
9 En Consumption/Pop Is PD	119.6	124.0	124.1	124.1	124.1	124.1
10 Electric En Consumption/Resident Population	82.5	82.7	82.7	82.5	82.5	82.5
11 Available Air Cond Capacity Is PD	2,085	2,062	2,062	2,062	2,062	2,062
12 Elec Engrg/Pop Is PD	62.2	71.1	71.1	71.1	71.1	71.1
13 Real Property Inventory (RPI) Is PD	1,286	1,403	1,403	1,403	1,403	1,403
14 RPI/Resident Population	77	89.4	89.4	89.4	89.4	89.4
15 Energy Consumption/GSF Is PD	154,644	155,641	166,854	176,055	177,321	177,321
16 Thermal En Consumption/GSF Is PD	76,110	74,110	81,227	85,585	87,376	87,376
17 Electrical En Consumption/GSF Is PD	78,534	81,531	85,627	90,470	90,033	90,033
18 RPI by Category						
Training	50	50	51	51	51	51
Maintenance & Production	6	6	7	7	7	7
Research, Development & Testing						
Storage						
Other General Storage	75	75	75	75	75	75
Hospital & Medical						
Administration	135	136	136	136	136	136
Recreation Housing	158	158	158	158	158	158
Community Facilities	131	131	131	131	131	131
Family Housing	431	431	431	431	431	431
Operational Buildings	435	435	435	435	435	435
Utility Buildings	1	1	1	1	1	1
Other	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non Resident Population *RPI Pop is Resident + 1/3 Non Resident

▼ FY 77 Family Housing EICP Improvements - \$63,795 - Completed (estimated) October 1978

REMARKS

Health Services Command

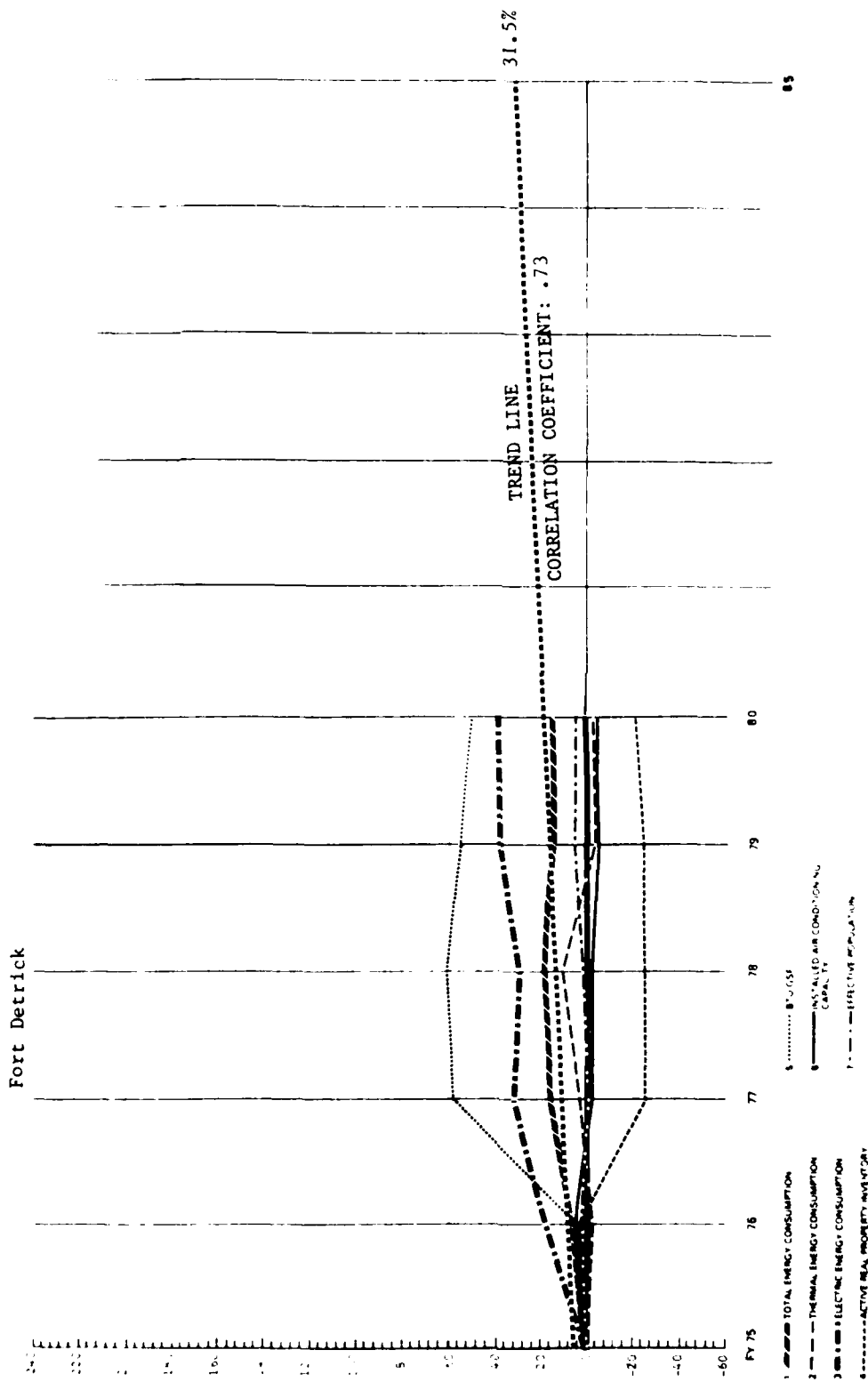


U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION CONSOLIDATION MACOM HSC

UNIT/TYPE	76	77	78	79	80
1 Energy Consumption to PD	3,754,225	3,925,898	4,236,215	4,265,400	4,989,818
2 Thermal En Core to PD	2,171,803	2,212,734	2,212,734	2,415,963	2,409,792
3 Electrical En Core to PD	1,582,422	1,713,164	2,023,481	2,410,437	2,580,026
4 Resident Population to PD	5,149	4,405	4,144	5,203	5,845
5 Non-Resident Population to PD	11,862	12,968	14,281	16,217	14,981
6 Population Served** to PD	17,011	17,373	18,425	21,420	20,826
7 Effective Population*** to PD	9,106	8,228	14,281	12,520	17,806
8 En Consumption/Pop Served to PD	220.7	226.0	227.5	210.9	279.7
9 En Consumption/Pop to PD	412.4	443.9	534.1	502.8	568.2
10 Electric En Consumption/Population	238.8	398.5	608.3	547.9	582.9
11 Installed Air Cond Capacity to PD	22,928	18,939	27,111	26,452	24,089
12 Elec Energy/Pop to PD	62.1	92.7	111.1	95.1	107.1
13 Real Property Inventory (RPI) to PD	7,562	7,515	7,298	9,190	10,090
14 RPI/Thermal Population	0.81	0.86	0.92	1.01	1.03
15 Energy Consumption/GSF to PD	497,789	522,561	580,216	505,189	496,511
16 Thermal En Consumption/GSF to PD	291,806	288,929	303,197	257,185	248,630
17 Electrical En Consumption/GSF to PD	201,983	233,632	277,018	248,004	247,881
18 RPI by Category					
Training					
Maintenance & Production					
Research, Development & Testing					
Storage					
Other General Storage					
Hospital & Medical					
Administration					
Bachelor Housing					
Community Facilities					
Family Housing					
Quartermaster Bldg					
Utility Buildings					
Other					

Population Served to PD used Resident & Non-Resident Population *RPI Pop to Resident + 1/3 Non-Resident

REMARKS



THE UNIVERSITY OF CHICAGO

U S Army

UNITS/STY	75	76	77	78	79	80
ABITU	1,555,200	1,660,400	1,720,200	1,816,250	1,720,250	1,720,250
ABITU	2,141,214	2,141,214	905,270	905,270	905,270	905,270
ABITU	658,224	658,224	905,270	905,270	905,270	905,270
PEOPLE	2,204	2,327	2,405	2,403	2,501	2,501
PEOPLE	3,103	3,214	3,311	3,456	3,536	3,536
PEOPLE	3,562	3,663	3,761	3,856	3,950	3,950
ABITU/ACAP	522,2	516,7	505,4	505,4	515,7	515,7
ABITU/ACAP	256,9	256,9	256,9	256,9	256,9	256,9
ABITU/ACAP	756,9	756,9	756,9	756,9	756,9	756,9
TIONS	66,125	66,125	66,125	66,125	66,125	66,125
100	91,9	91,9	91,9	91,9	91,9	91,9
200	2,021	2,021	2,021	2,021	2,021	2,021
300	2,021	2,021	2,021	2,021	2,021	2,021
400	2,021	2,021	2,021	2,021	2,021	2,021
500	2,021	2,021	2,021	2,021	2,021	2,021
600	2,021	2,021	2,021	2,021	2,021	2,021
700	2,021	2,021	2,021	2,021	2,021	2,021
800	2,021	2,021	2,021	2,021	2,021	2,021
900	2,021	2,021	2,021	2,021	2,021	2,021
1000	2,021	2,021	2,021	2,021	2,021	2,021
1100	2,021	2,021	2,021	2,021	2,021	2,021
1200	2,021	2,021	2,021	2,021	2,021	2,021
1300	2,021	2,021	2,021	2,021	2,021	2,021
1400	2,021	2,021	2,021	2,021	2,021	2,021
1500	2,021	2,021	2,021	2,021	2,021	2,021
1600	2,021	2,021	2,021	2,021	2,021	2,021
1700	2,021	2,021	2,021	2,021	2,021	2,021
1800	2,021	2,021	2,021	2,021	2,021	2,021
1900	2,021	2,021	2,021	2,021	2,021	2,021
2000	2,021	2,021	2,021	2,021	2,021	2,021
2100	2,021	2,021	2,021	2,021	2,021	2,021
2200	2,021	2,021	2,021	2,021	2,021	2,021
2300	2,021	2,021	2,021	2,021	2,021	2,021
2400	2,021	2,021	2,021	2,021	2,021	2,021
2500	2,021	2,021	2,021	2,021	2,021	2,021
2600	2,021	2,021	2,021	2,021	2,021	2,021
2700	2,021	2,021	2,021	2,021	2,021	2,021
2800	2,021	2,021	2,021	2,021	2,021	2,021
2900	2,021	2,021	2,021	2,021	2,021	2,021
3000	2,021	2,021	2,021	2,021	2,021	2,021
3100	2,021	2,021	2,021	2,021	2,021	2,021
3200	2,021	2,021	2,021	2,021	2,021	2,021
3300	2,021	2,021	2,021	2,021	2,021	2,021
3400	2,021	2,021	2,021	2,021	2,021	2,021
3500	2,021	2,021	2,021	2,021	2,021	2,021
3600	2,021	2,021	2,021	2,021	2,021	2,021
3700	2,021	2,021	2,021	2,021	2,021	2,021
3800	2,021	2,021	2,021	2,021	2,021	2,021

RD = Percent Deviation from Base Year

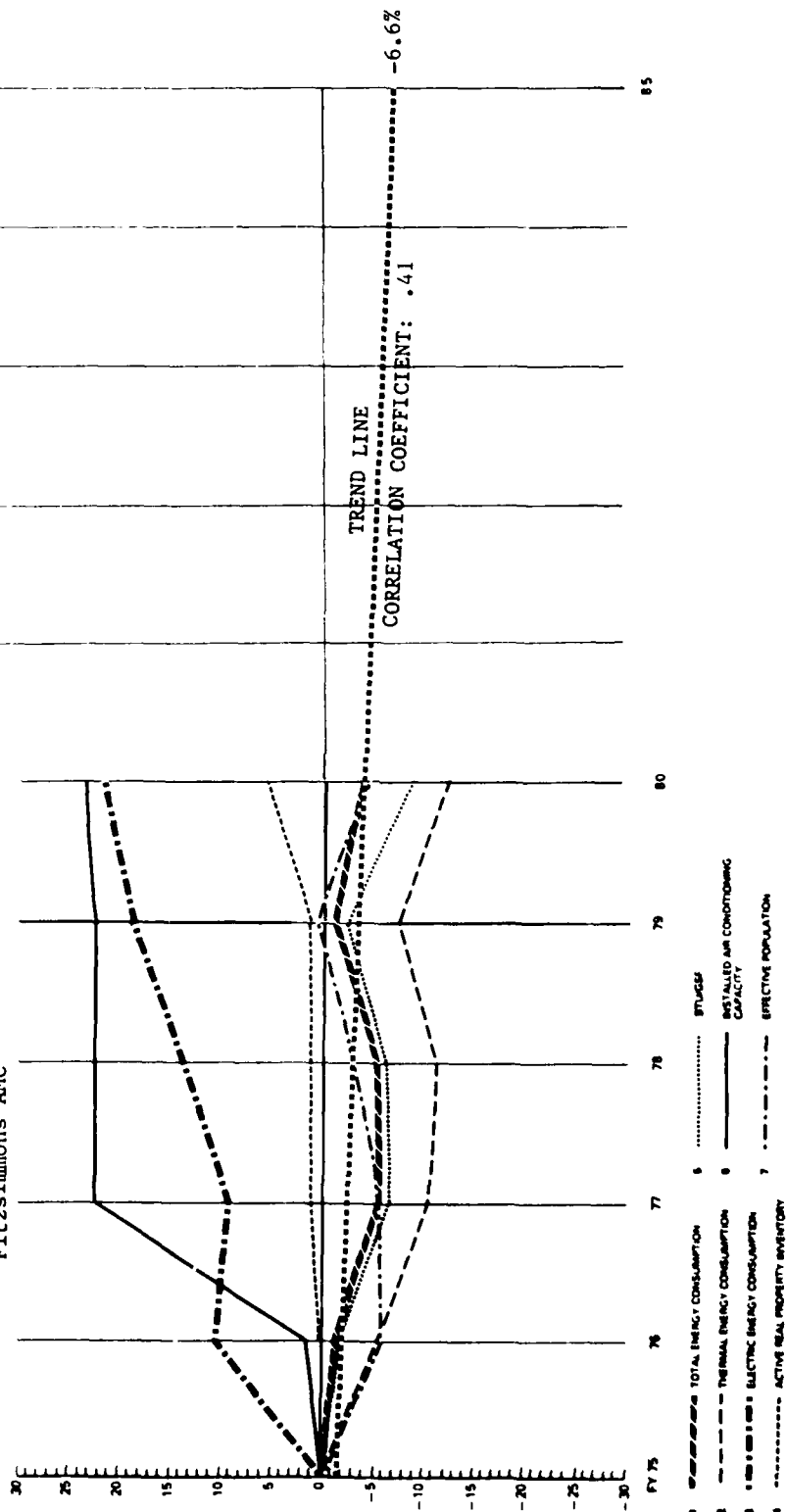
2010-11 Percentage Deviation from Base Year

...Population Served is the total Resident by Non Resident Population

1/3 Non Resident

THE MAPS

Fitzsimmons AMC



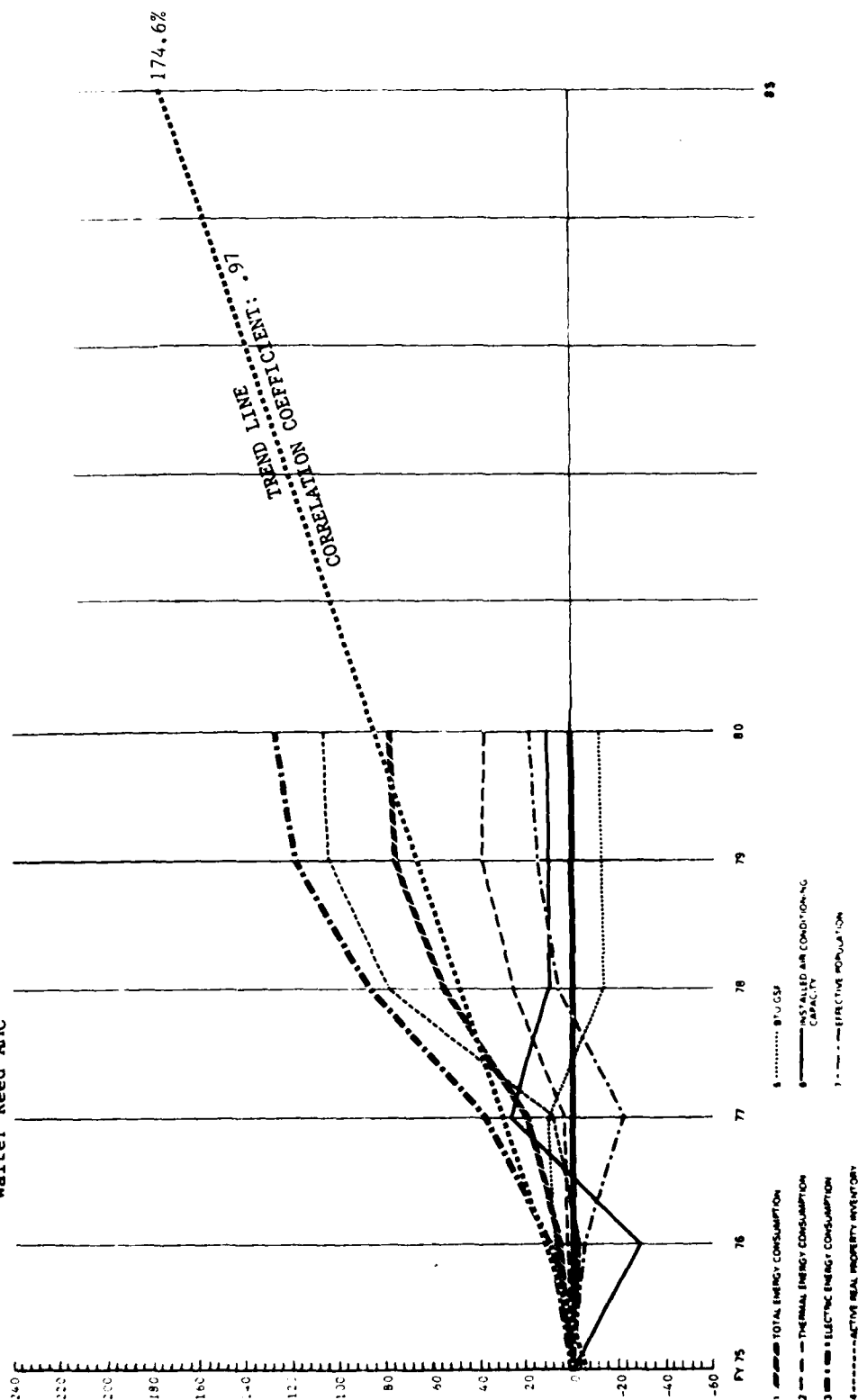
UNIT/STY	75	76	77	78	79	80
1 Energy Consumption B PD	815,370	802,278	769,330	773,508	805,863	842,255
2 Thermal En Cons B PD	511,490	519,001	546,510	511,555	564,183	515,003
3 Electrical En Cons B PD	201,810	222,777	223,222	232,065	231,258	248,275
4 Resident Population B PD	1,957	1,770	1,945	1,850	2,026	1,908
5 Non-Resident Population B PD	3,065	3,111	3,551	2,804	2,850	2,808
6 Population Servant** B PD	5,022	4,881	4,281	4,754	4,466	4,552
7 Effective Population*** B PD	2,079	2,807	4,581	2,866	2,886	2,808
8 En Consumption/Pop Served B PD	162.3	164.5	133.1	162.3	164.6	154.1
9 En Consumption/Pop Served B PD	273.7	286.0	4.57	273.6	268.0	274.4
10 En Consumption/Pop Served B PD	106.2	127.0	117.9	119.0	118.2	130.2
11 Installed Air Cond Capacity B PD	1,037	1,051	1,228	1,273	1,273	1,283
12 Elec Energy/Ton of Air Cond B PD	186.6	213.9	140.8	182.3	189.9	191.9
13 Real Property Inventory (RPI) B PD	2,355	2,355	1,111	2,584	2,584	2,606
14 Real Property Inventory (RPI) B PD	319,108	314,193	297,099	299,362	311,435	290,903
15 Energy Consumption/GSF B PD	239,331	226,224	211,580	209,551	218,137	198,628
16 Thermal En Consumption/GSF B PD	79,777	87,975	86,420	89,808	81,487	82,873
17 Electrical En Consumption/GSF B PD	163	163	163	163	163	168
18 Btu by Category						
Training	83	83	83	83	83	91
Maintenance & Production	63	63	63	63	63	63
Research, Development & Training	63	63	63	63	63	63
Storage	127	126	126	126	126	126
Other Covered Storage	627	627	627	627	627	627
Hospital & Medical	255	255	255	255	255	255
Administration	396	396	396	396	396	396
Bachelor Housing	376	376	376	376	376	376
Community Facilities	648	648	648	648	648	648
Family Housing	31	31	31	31	31	31
Operational Buildings	26	26	26	26	26	26
Other	26	26	26	26	26	26

**Population Served is the total Resident & Non-Resident Population

***Pop is Resident + 1/3 Non-Resident

REMARKS

Walter Reed AMC



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION WALTER REED AVE. WASH. D.C. MACOM HSC CLIMATIC REGION 3 HDD 4,481 CDD 1,212

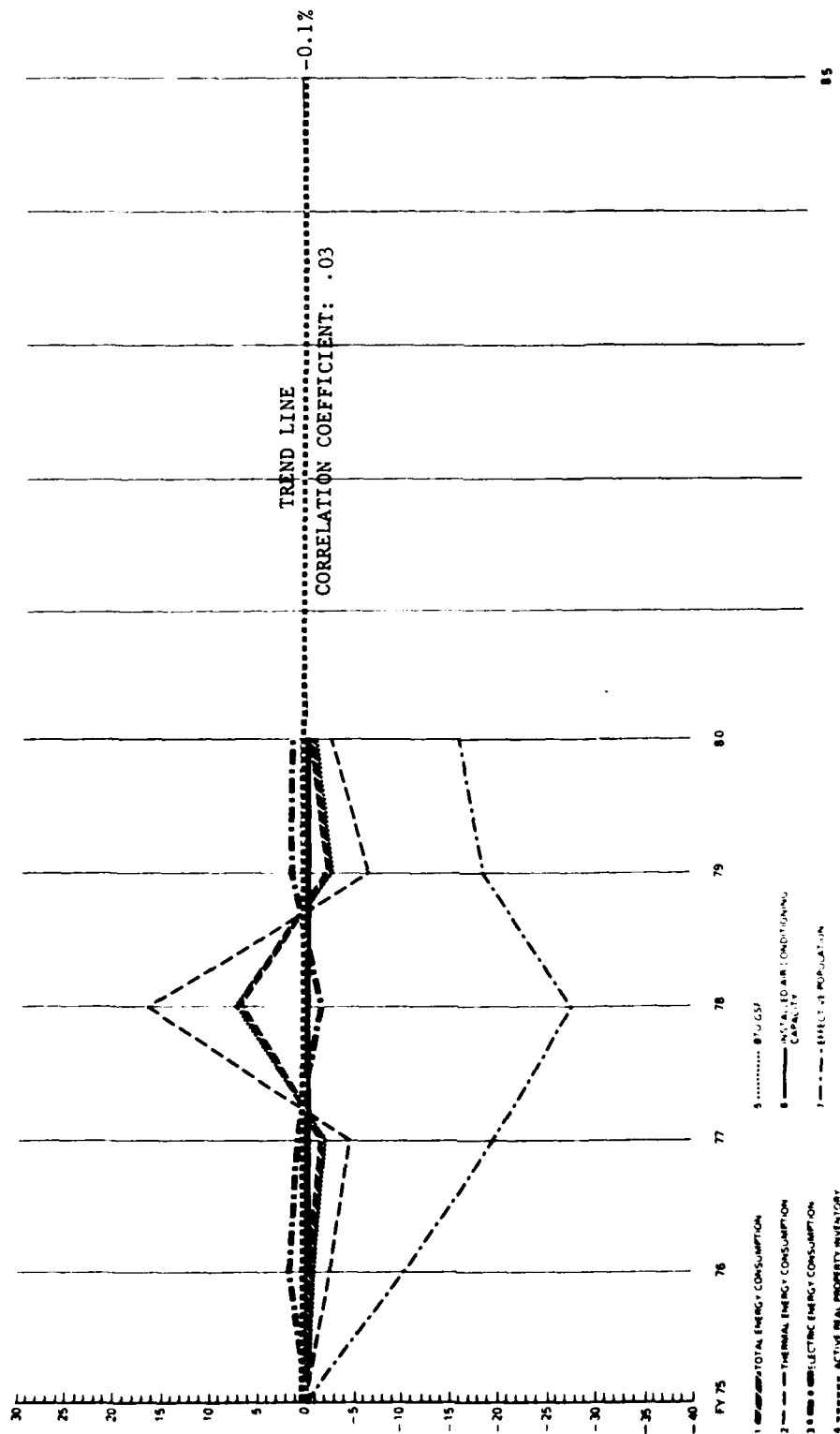
UNITS	75	76	77	78	79	80
1 Energy Consumption & PD	1,382,199	1,463,500	1,652,943	2,133,200	2,415,436	2,565,068
2 Thermal En Cons & PD	734,366	746,385	760,154	912,276	1,014,684	1,000,191
3 Electrical En Cons & PD	649,833	717,115	892,889	1,221,924	1,400,952	1,564,877
4 Resident Population & PD	2,100	1,748	210	459.1	2,106	2,916
5 Non-Resident Population & PD	6,593	7,510	8,372	12,601	2,105	6,560
6 Population Served** & PD	8,693	9,218	9,082	12,601	2,105	6,560
7 Effective Population*** & PD	6,498	6,258	3,501	4,222.1	4,777	5,114
8 En Consumption/Pop Served & PD	155.4	157.7	182.0	172.3	174.3	174.3
9 En Consumption/Pop Served & PD	107.3	107.3	107.3	107.3	107.3	107.3
10 En Consumption/Pop Served & PD	282.4	282.4	282.4	282.4	282.4	282.4
11 Residential En Cons & PD	14,898	10,574	18,969	16,310	16,310	16,310
12 Rec Energy/Ton of Air Cond & PD	43.6	62.8	42.1	7.9	74.6	87.9
13 Rec Property Inventory 1979 & PD	2,966	2,876	3,216	5,323	6,019	6,088
14 Rec Property Inventory 1979 & PD	466,014	508,866	510,798	400,751	401,302	404,306
15 Rec Property Inventory 1979 & PD	246,388	259,322	234,667	172,123	168,567	164,282
16 Thermal En Consumption/GSF & PD	219,026	249,104	275,831	328,638	332,155	340,674
17 Rec Thermal En Consumption/GSF & PD	129	14	14	14	14	14
18 En by Category	129	14	14	14	14	14
Training	47	46	46	51	50	49
Maintenance & Production	675	680	684	707	718	718
Research, Development & Testing	84	79	79	76	78	78
Storage	1,159	1,157	1,153	1,153	1,153	1,153
Other Covered Storage	152	160	157	165	165	165
Hospital & Medical	421	440	440	440	440	440
Administrative	291	293	280	281	281	281
Residential Housing	155	134	57	81	348	348
Community Fee Rate	51	86	86	86	86	86
Family Housing	51	86	86	86	86	86
Operational Buildings	51	86	86	86	86	86
Utility Buildings	51	86	86	86	86	86
Other	51	86	86	86	86	86

**Population Served is the total Resident & Non-Resident Population

***En Pop is Resident + 1/3 Non-Resident

REMARKS

Intelligence & Security Command



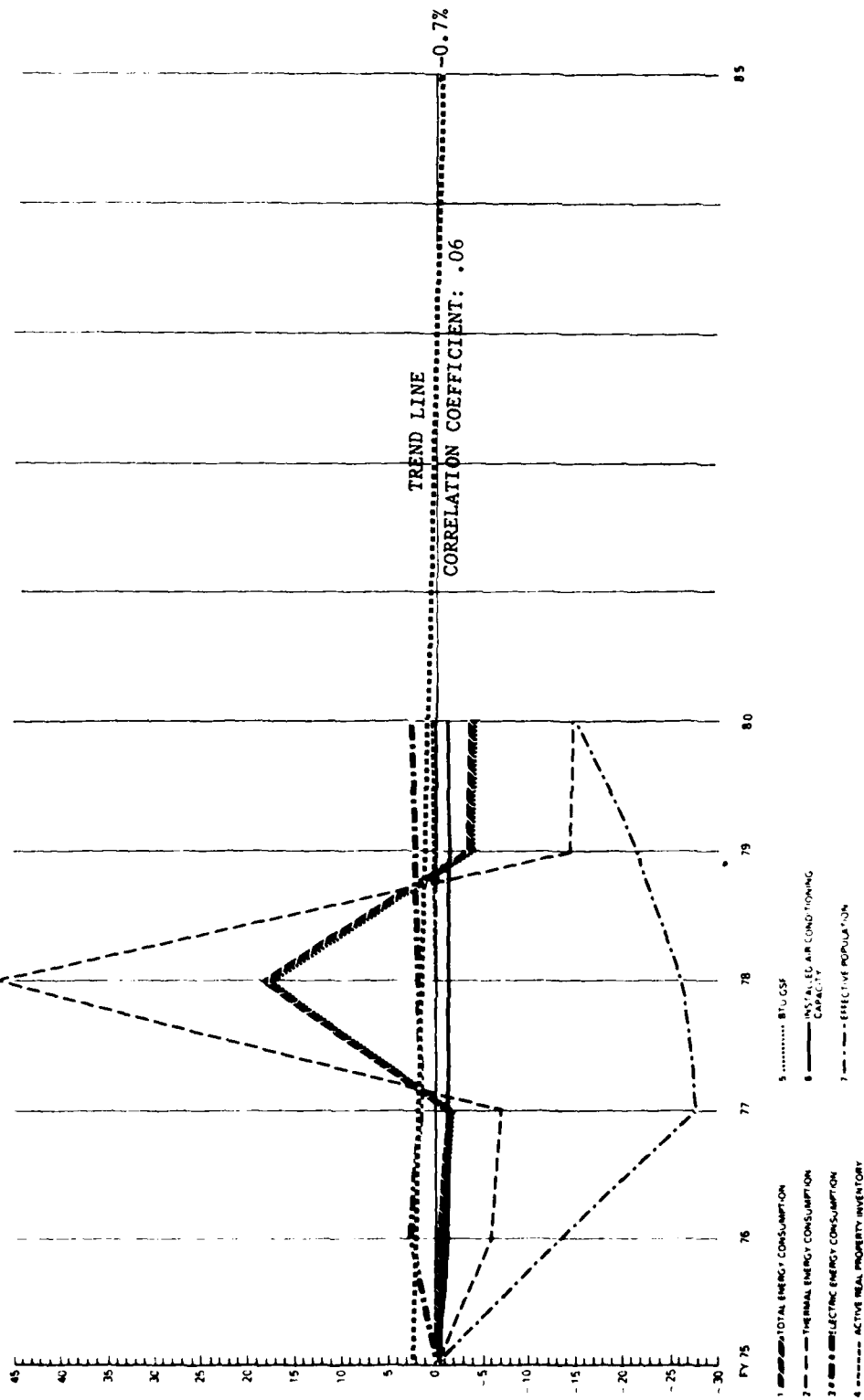
U.S. Army ANALYSIS OF ENERGY CONSUMPTION HOT CONSUMPTION INSTALLATION CONCENTRATION MACOM TINSLOW

UNIT/ST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 Energy Consumption by PD																				
2 Thermal En Cons by PD																				
3 Electrical En Cons by PD																				
4 Resident Population by PD																				
5 Non Resident Population by PD																				
6 Population Served by PD																				
7 Effective Population by PD																				
8 En Consumption Pop Served by PD																				
9 En Consumption by PD																				
10 Electric En Consumption by PD																				
11 Installed Air Cond Capacity by PD																				
12 Elec Energy by PD																				
13 Real Property Inventory by PD																				
14 Real Property Inventory by PD																				
15 Energy Consumption by PD																				
16 Thermal En Consumption by PD																				
17 Electrical En Consumption by PD																				
18 Thermal En Consumption by PD																				
19 Electrical En Consumption by PD																				
20 En by Category																				
Training																				
Maintenance & Production																				
Research Development & Testing																				
Storage																				
Other Covered Storage																				
Hospital & Medical																				
Administration																				
Resistor Housing																				
Community Facilities																				
Family Housing																				
Operational Buildings																				
Utility Buildings																				
Other																				

THIS CONSOLIDATION INCLUDES ARLINGTON HALL STATION, VINT HILLS FARM STATION AND BIOGENES (OVERSEAS).

REMARKS

Arlington Hall Station



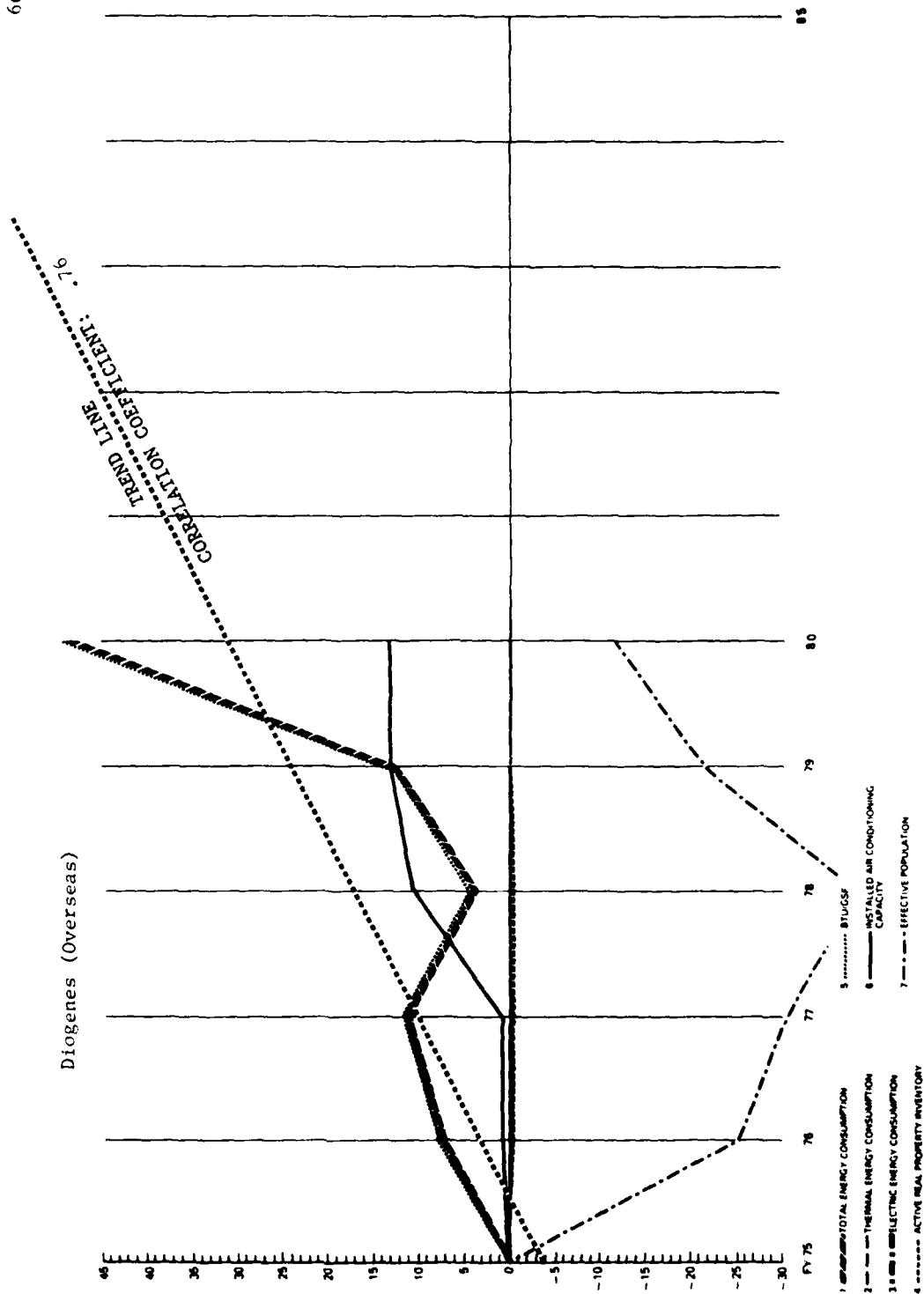
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION 251 LINTON HALL STATION, VA. MACOM INCOM CLIMATIC REGION 3 HDD 4,211 CDD 1,415

UNIT/STY	75	76	77	78	79	80
1 Fresh Consumption in PD	254,163	254,580	254,580	254,580	254,580	254,580
2 Thermal En Core in PD	84,781	84,781	84,781	84,781	84,781	84,781
3 Electrical En Core in PD	161,382	161,382	161,382	161,382	161,382	161,382
4 Resident Population in PD	2,531	2,531	2,531	2,531	2,531	2,531
5 Non-Resident Population in PD	2,531	2,531	2,531	2,531	2,531	2,531
6 Population Served** in PD	5,062	5,062	5,062	5,062	5,062	5,062
7 Effective Population*** in PD	1,244	1,244	1,244	1,244	1,244	1,244
8 En Consumption/Pop Served in PD	81.5	81.5	81.5	81.5	81.5	81.5
9 En Consumption/Pop in PD	205.9	205.9	205.9	205.9	205.9	205.9
10 Thermal En Consumption/Pop in PD	567.1	567.1	567.1	567.1	567.1	567.1
11 Electrical En Consumption/Pop in PD	2,531	2,531	2,531	2,531	2,531	2,531
12 Thermal En Consumption/Pop in PD	567.1	567.1	567.1	567.1	567.1	567.1
13 Electrical En Consumption/Pop in PD	2,531	2,531	2,531	2,531	2,531	2,531
14 Non-Resident Population	2,531	2,531	2,531	2,531	2,531	2,531
15 En Consumption/Pop in PD	2,531	2,531	2,531	2,531	2,531	2,531
16 Thermal En Consumption/Pop in PD	567.1	567.1	567.1	567.1	567.1	567.1
17 Electrical En Consumption/Pop in PD	2,531	2,531	2,531	2,531	2,531	2,531
18 En by Category						
Training	3	3	3	3	3	3
Maintenance & Production	24	24	24	24	24	24
Research, Development & Training	32	32	32	32	32	32
Storage	5	5	5	5	5	5
Other Contracted Storage	5	5	5	5	5	5
Hospital & Medical	556	556	556	556	556	556
Administration	84	84	84	84	84	84
Recreation	85	85	85	85	85	85
Community Facilities	9	9	9	9	9	9
Family Housing	1	1	1	1	1	1
Quartermaster Bldg	1	1	1	1	1	1
Utility Buildings	5	5	5	5	5	5
Other	5	5	5	5	5	5
Not Available	BASE	BASE	BASE	BASE	BASE	BASE
**Population Served is the total Resident & Non-Resident Population						
**PD is Percent Deviation from Base Year						

REMARKS

66.9%

Diogenes (Overseas)

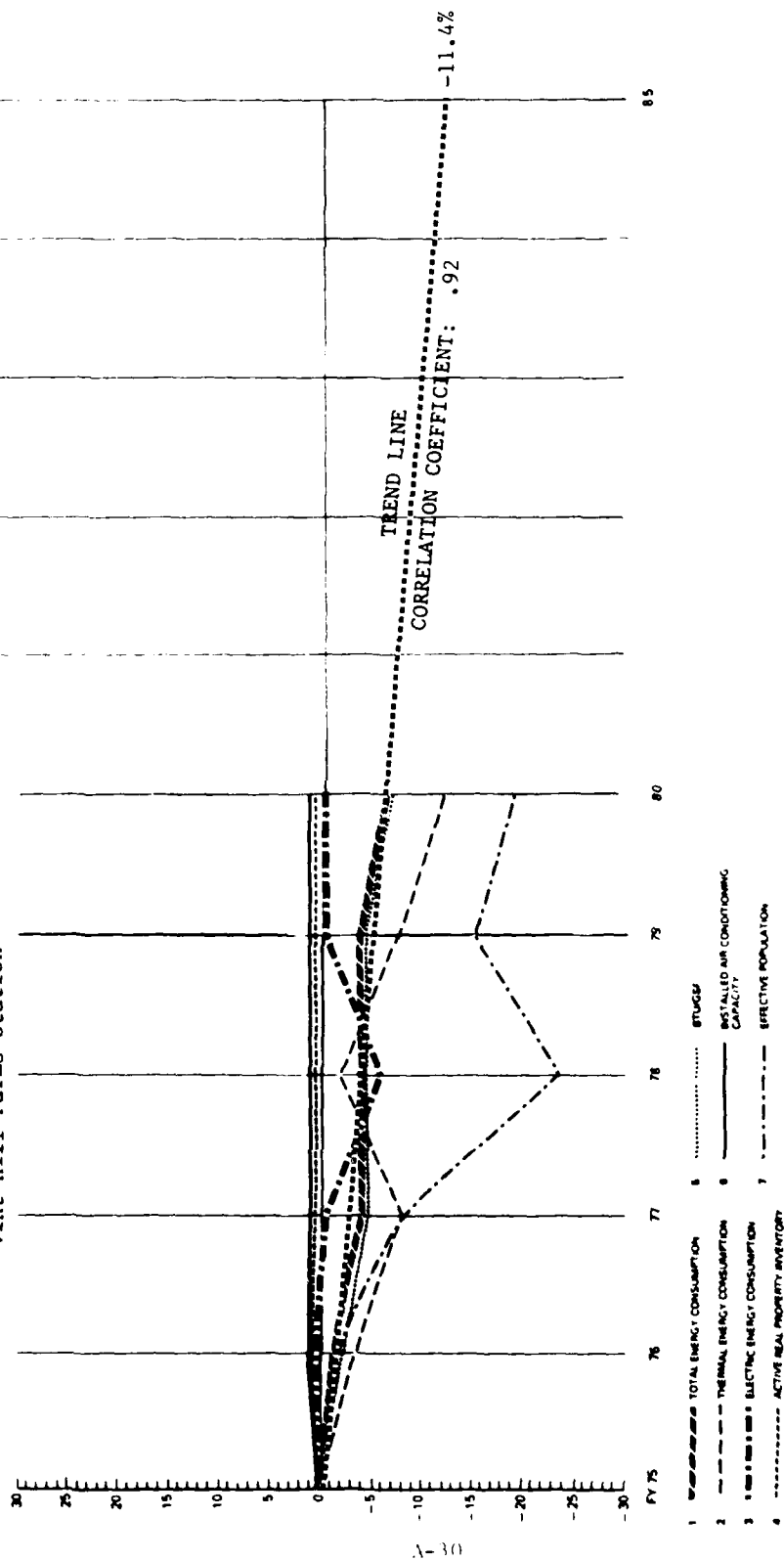


U.S. Army ANALYSIS OF ENERGY CONSUMPTION

2

REMARKS

Vint Hill Farms Station

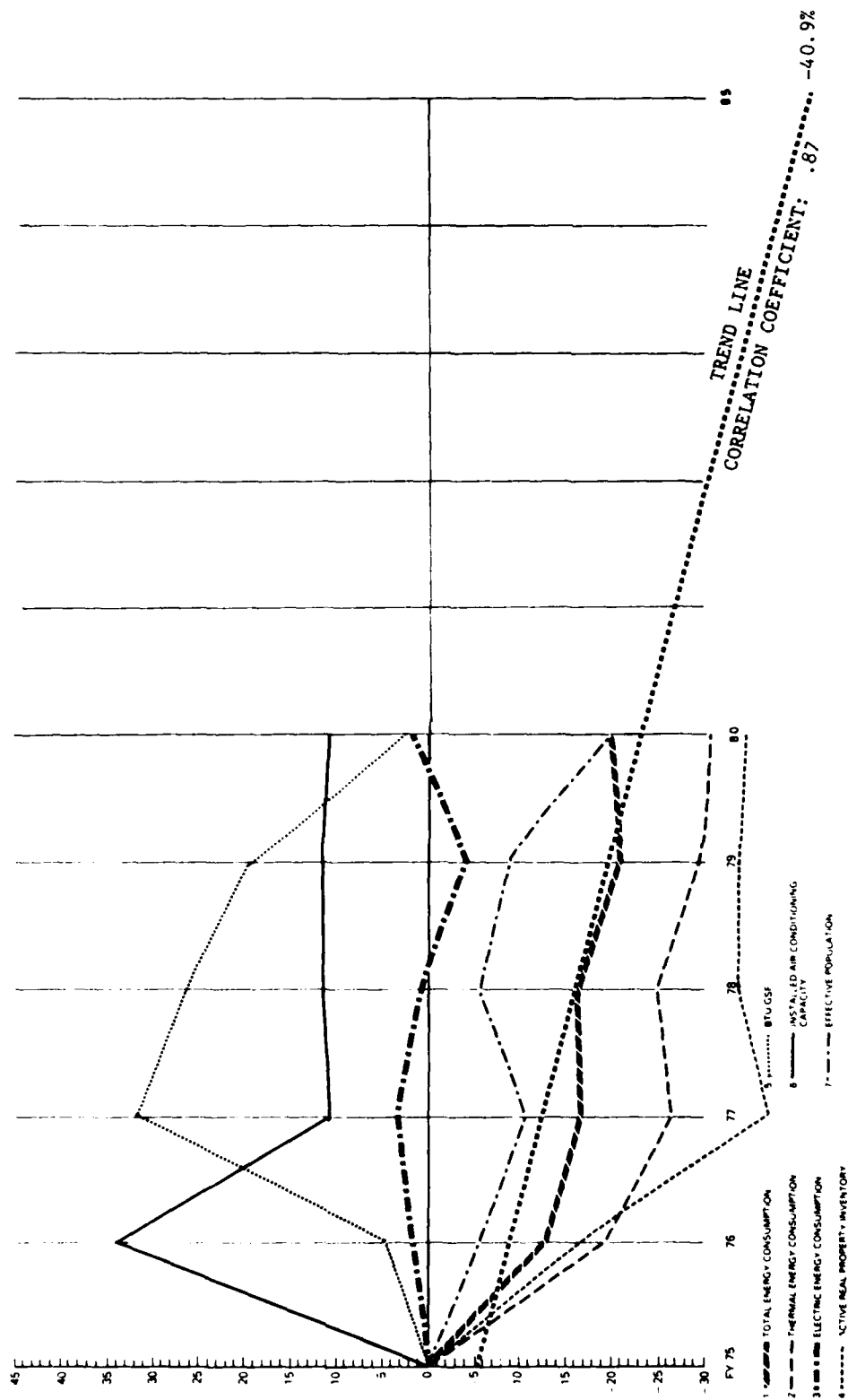


1

17 Buildings

1

Military Traffic Management Command



U.S. ARMY ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION CONSTRUCTION MACOM

UTILITY	76	77	78	79	80
1. Energy Consumption & PD	1,324,200	1,226,981	1,251,218	1,181,816	1,196,527
2. Thermal En Cons & PD	1,324,200	1,226,981	1,251,218	1,181,816	1,196,527
3. Electrical En Cons & PD	2,913,355	2,979,356	2,979,356	2,979,356	2,979,356
4. Resident Population & PD	1,126	1,127	1,100	1,124	1,124
5. Non-Resident Population & PD	2,655	2,655	2,655	2,655	2,655
6. Population Service** & PD	6,925	6,925	6,925	6,925	6,925
7. Inactive Population*** & PD	3,134	3,134	3,134	3,134	3,134
8. In Consumption/Pop Served & PD	2,152	2,152	2,152	2,152	2,152
9. En Consumption/Pop & PD	476.8	476.8	476.8	476.8	476.8
10. Electric En Consumption/Resident Population	1,891	1,891	1,891	1,891	1,891
11. Installed Air Cond Capacity & PD	2,661.6	2,661.6	2,661.6	2,661.6	2,661.6
12. Electric En Cons of Air Cond & PD	1,497.5	1,497.5	1,497.5	1,497.5	1,497.5
13. Real Property Inventory (RPI) & PD	11,435	11,435	11,435	11,435	11,435
14. RPI/Inactive Population	3.92	3.92	3.92	3.92	3.92
15. Energy Consumption/GSF & PD	107,452	107,452	107,452	107,452	107,452
16. Thermal En Consumption/GSF & PD	71,978	71,978	71,978	71,978	71,978
17. Electrical En Consumption/GSF & PD	35,474	35,474	35,474	35,474	35,474
18. RPI by Category					
Training					
Maintenance & Production					
Research Development & Testing					
Storage					
Other Covered Storage					
Hospital & Medical					
Administration					
Resident Housing					
Community Facilities					
Family Housing					
Operational Buildings					
Utility Buildings					
Other					
Net Available					

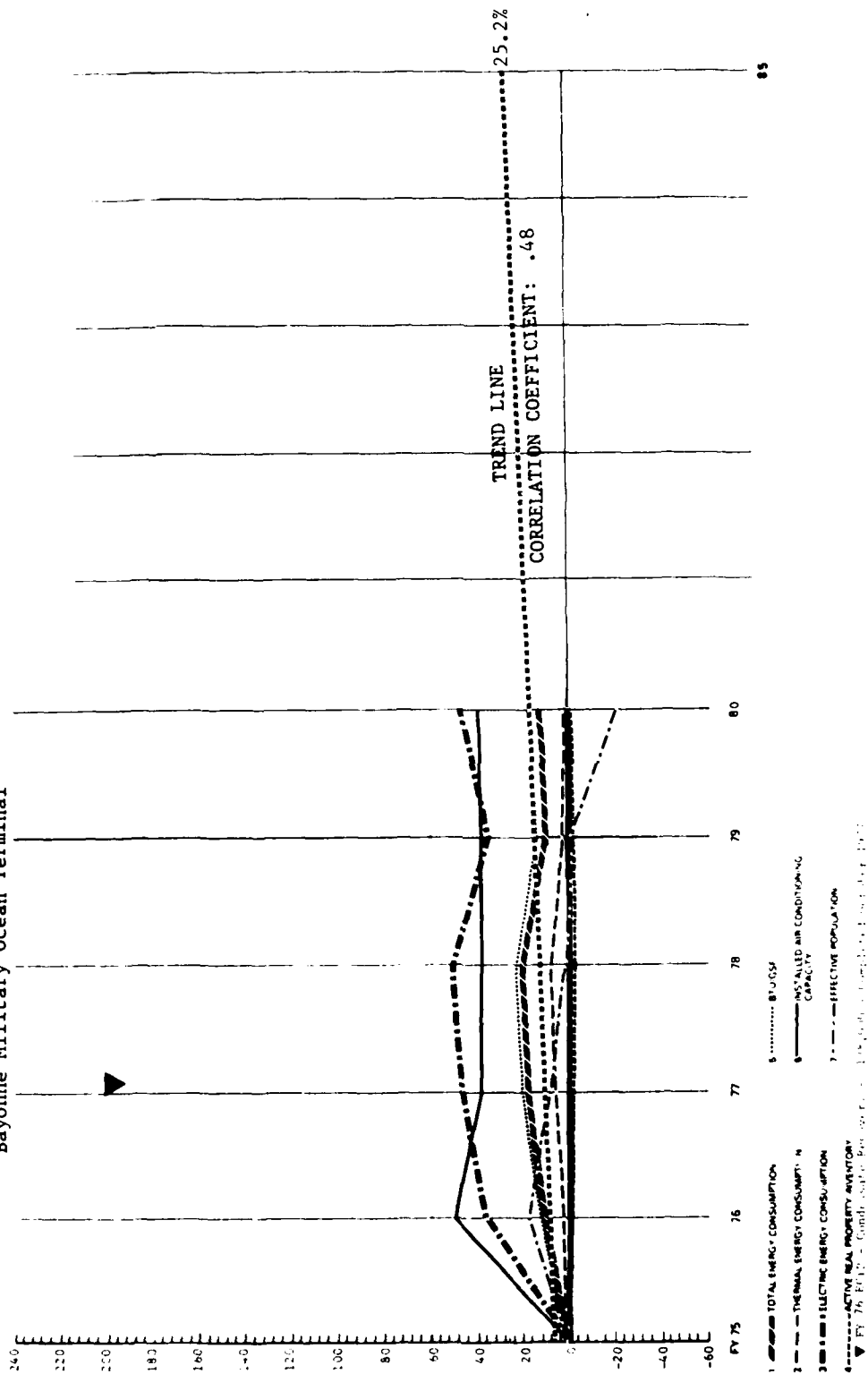
**PD is Percent Deviation from Base Year

***Population Served is the Total Resident & Non-Resident Population

****RPI by Resident + 10 Non-Resident

REMARKS

Bayonne Military Ocean Terminal



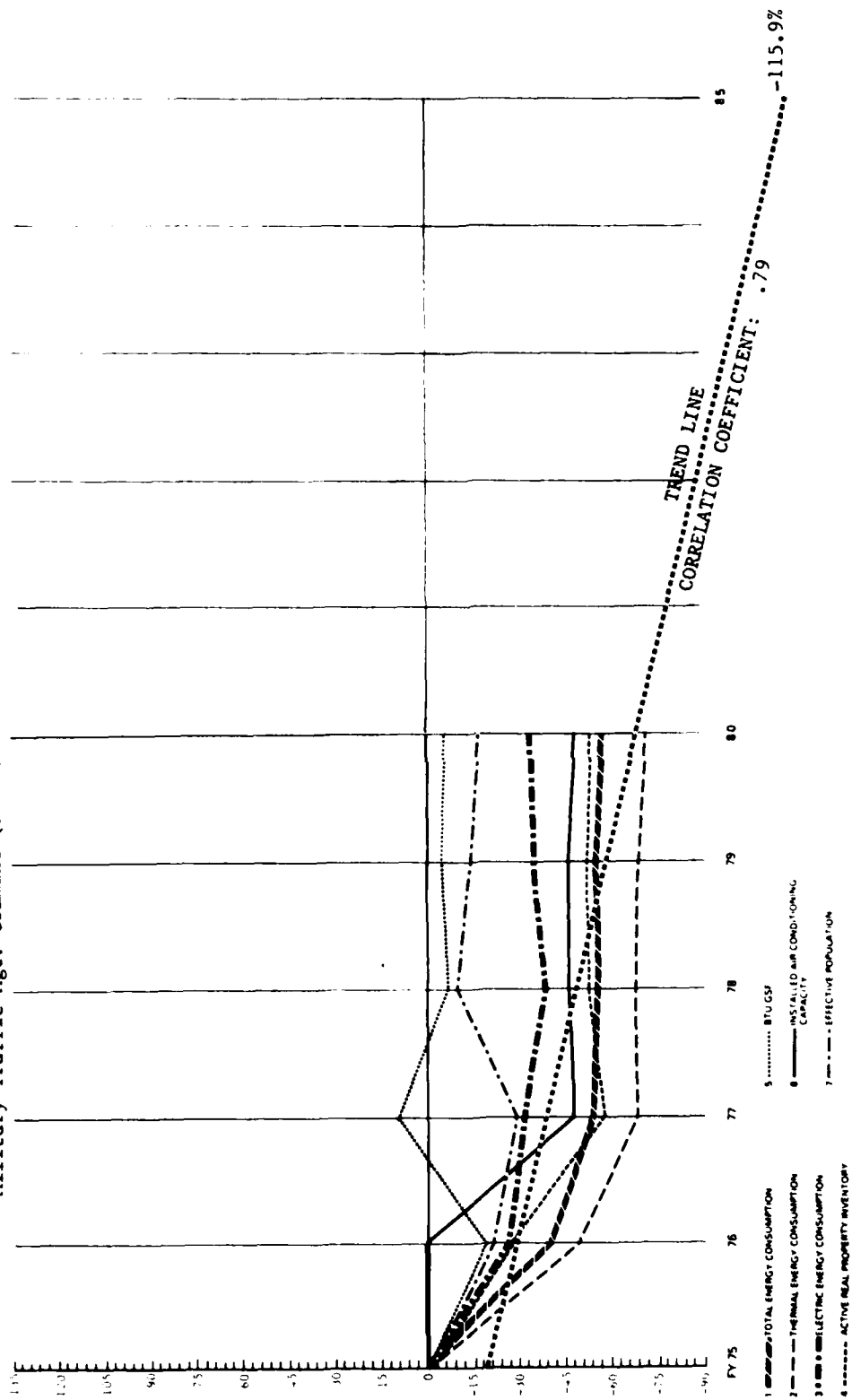
UNITS	PS	76	77	78	79	80
1 Energy Consumption to PD	293,721	890,552	1,221	929,268	1,171	949,414
2 Thermal En Cond to PD	521,516	587,265	1,221	604,025	1,171	617,120
3 Electrical En Cond to PD	222,255	102,282	1,221	355,025	1,171	312,942
4 Resident Population to PD	809	881	1,221	861	1,171	792
5 Non Resident Population to PD	2,319	2,910	1,221	2,731	1,171	2,386
6 Population Services to PD	3,128	3,791	1,221	3,532	1,171	3,109
7 Effective Population to PD	1,582	1,851	1,221	1,711	1,171	1,580
8 En Consumption/Pop to PD	253.8	234.9	1,221	261.1	1,171	248.7
9 En Consumption/Pop to PD	501.8	481.1	1,221	523.1	1,171	507.5
10 Electric En Consumption/Pop to PD	274.7	343.6	1,221	306.0	1,171	284.5
11 Installed Air Cond Capacity to PD	1,105	1,949	1,221	1,784	1,171	1,794
12 Electric En Cond Capacity to PD	170.3	155.4	1,221	181.3	1,171	185.2
13 Heat Property Inventory (Btu) to PD	5,436	5,433	1,221	5,282	1,171	5,282
14 Heat Property Inventory (Btu) to PD	3,43	2,94	1,221	3,09	1,171	3,13
15 Energy Consumption/GSF to PD	166,025	163,915	1,221	175,765	1,171	179,575
16 Thermal En Consumption/GSF to PD	105,174	109,184	1,221	114,247	1,171	116,724
17 Electrical En Consumption/GSF to PD	50,900	55,731	1,221	61,517	1,171	62,851
18 En by Category	2	2	2	2	2	2
Training	768	768	768	768	768	768
Maintenance & Production	3,806	3,579	3,431	3,431	3,431	3,431
Research, Development & Testing	6	6	6	6	6	6
Storage	259	486	486	486	486	486
Other Contract Storage	62	64	64	64	64	64
Administration	176	176	176	176	176	176
Residential Housing	211	211	211	211	211	211
Community Facilities	1	1	1	1	1	1
Family Housing	143	143	143	143	143	143
Overseas Facilities	BASE	BASE	BASE	BASE	BASE	BASE
Utility Buildings	143	143	143	143	143	143
Other	2	2	2	2	2	2

**Populaton Served is the total Resident & Non-Resident Population

▼ FY 76 ECTP - Condensate Recovery - \$128,000 - Completed October 1977

REMARKS

Military Traffic Mgt. Command (other)

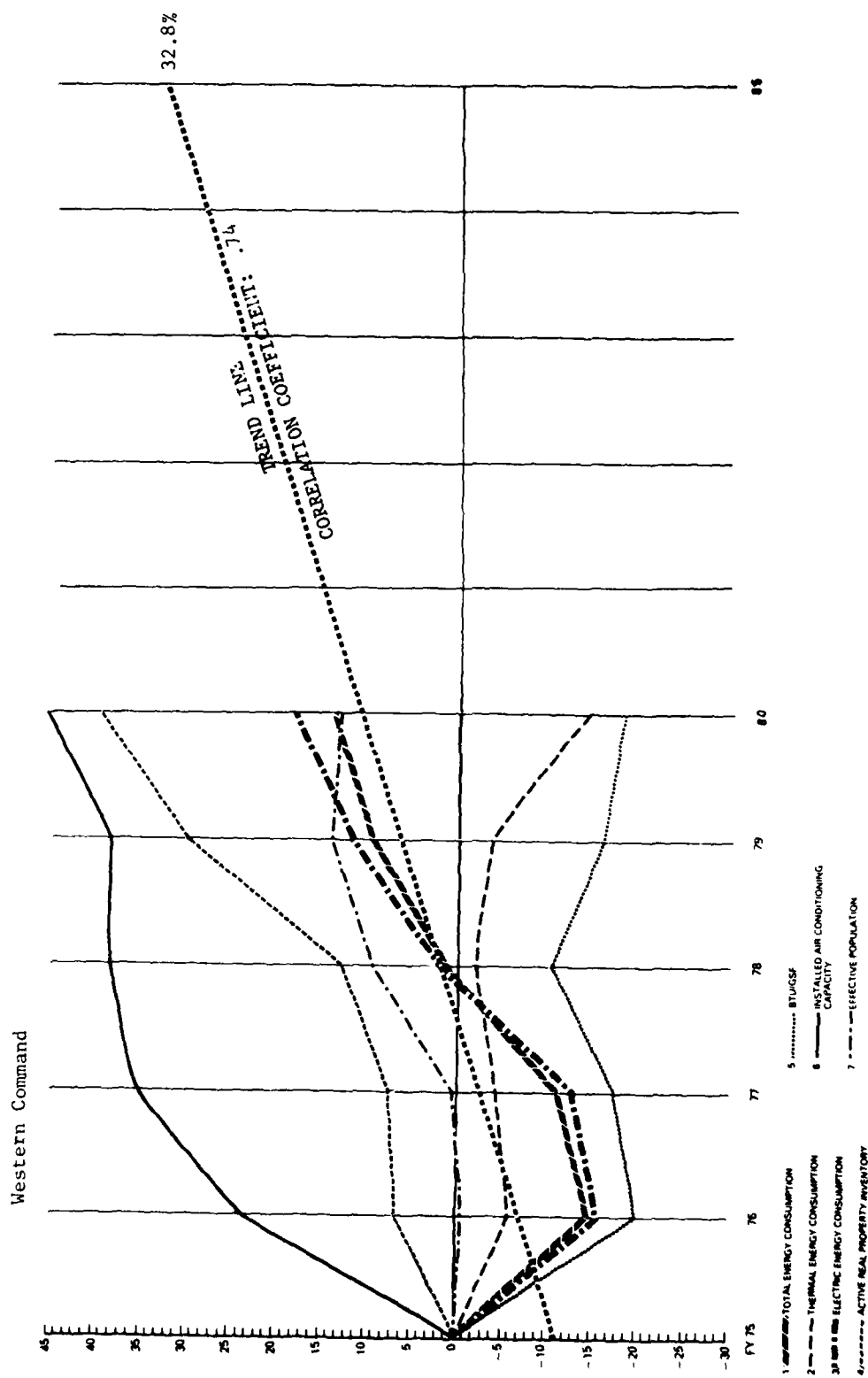


U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - MILITARY TRAFFIC MT. (MT) MACOM NAME CLIMATIC REGION 4 HDD 2,384 CDD 1,565

UNIT/STY	75	76	77	78	79	80
1 Energy Consumption (E) PD	100,170	116,005	137,214	107,104	108,003	198,928
2 Thermal En Cons to PD	122,102	147,510	171,600	136,680	131,453	120,150
3 Electrical En Cons to PD	271,070	324,520	385,111	365,624	376,520	178,278
4 Resident Population (R) PD	3,270	3,293	3,276	3,506	3,558	4,533
5 Non Resident Population (N) PD	1,369	2,452	2,153	2,637	2,595	2,400
6 Population Served*** (P) PD	3,798	2,752	2,551	3,143	3,053	2,922
7 Effective Population*** (E) PD	1,552	1,212	1,003	1,485	1,373	1,287
8 En Consumption/Pop Served (E) PD	185.4	153.2	135.2	162.2	160.9	151.2
9 En Consumption/Pop Served (E) PD	451.3	333.2	280.7	377.3	385.4	394.7
10 Thermal En Consumption/GSF (E) PD	611.9	672.9	789.7	677.3	678.2	322.3
11 Electrical En Consumption/GSF (E) PD	588	589	609.6	315	314	301
12 Total En Consumption/GSF (E) PD	1,199.9	1,262.8	1,399.3	992.6	992.6	623.6
13 Fuel Property Inventory (FPI) (E) PD	8,172	6,202	3,570	3,048	3,938	3,878
14 Ineffective Population	3,445	5,112	3,227	2,851	2,981	2,991
15 Energy Consumption/GSF (E) PD	82,682	67,076	90,259	76,571	78,213	77,683
16 Thermal En Consumption/GSF (E) PD	50,656	35,071	37,653	30,420	33,388	31,123
17 Electrical En Consumption/GSF (E) PD	31,996	32,005	52,606	46,151	44,825	46,560
18 En Cons by Category						
Training	17					29
Maintenance & Production	259	320	130	128	178	99
Research, Development & Testing						
Storage	5,862	4,108				2,487
Other Covered Storage						18
Hospital & Medical	29	18				539
Administration	1,462	1,094	438	458	563	204
Residential Housing	243	156	191	206	204	204
Community Facilities	110	104	216	207	167	167
Family Housing	172	167	167	167	167	167
Operational Buildings	16	12	12	12	12	17
Utility Buildings	61					
Other						94

PD is Percent Deviation from Base Year **Population Served at the total Resident & Non Resident Population ***En Cons by Category

REMARKS Includes all MTC activities except Bayonne Military Ocean Terminal, NJ, which is reported separately.



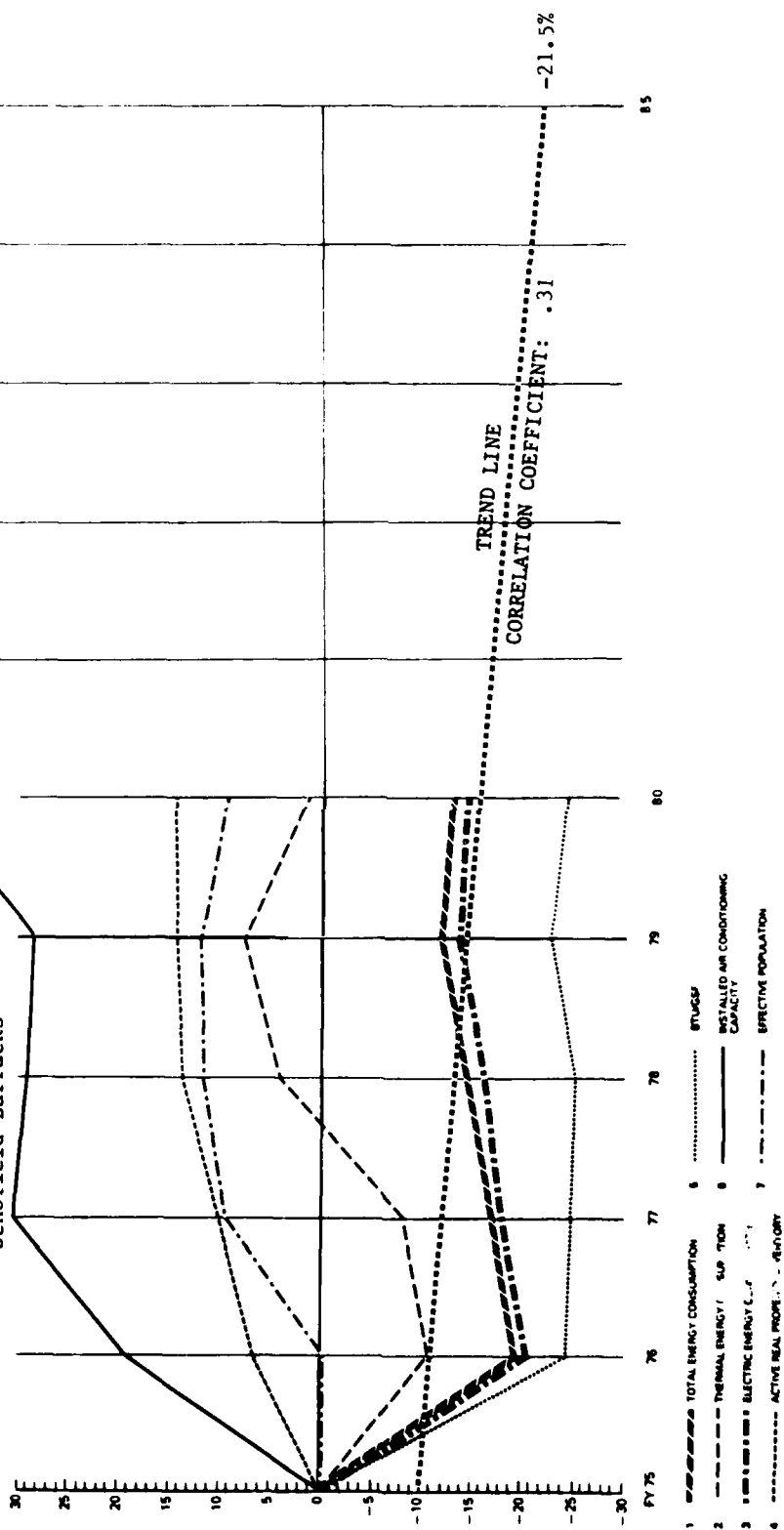
U.S. Army ANALYSIS OF ENERGY CONSUMPTION -- INSTALLATION CONSUMPTION MACOM WASHINGTON

UNIT/STY	75	76	77	78	79	80
1 Energy Consumption & PD	2,570,300	2,199,172	2,282,252	2,002,106	2,417,203	2,925,824
2 Thermal En Cons & PD	111,962	114,114	119,926	127,826	121,900	286,169
3 Electrical En Cons & PD	2,236,938	1,884,136	1,962,327	1,874,280	2,495,303	2,639,655
4 Resident Population & PD	20,202	26,130	28,924	31,767	33,218	32,994
5 Non Resident Population & PD	14,481	14,921	15,670	16,466	16,290	16,134
6 Population Served** & PD	40,683	40,191	44,644	48,233	49,508	49,128
7 Effective Population*** & PD	31,010	30,821	31,168	33,902	35,315	35,039
8 En Consumption/Pop Served & PD	63.2	64.7	66.1	68.1	71.3	74.7
9 En Consumption/Pop & PD	84.9	71.3	73.2	76.8	79.8	83.5
10 Electric En Consumption/Resident Population	85.4	72.1	74.8	78.7	81.2	80.0
11 Installed Air Cond Capacity & PD	7,532	9,426	10,321	10,523	10,512	11,040
12 Elec Energy/Ton of Air Cond & PD	295.4	199.9	190.1	216.2	237.4	239.0
13 Real Property Inventory (RPI) & PD	17,569	18,775	18,855	19,789	22,868	26,627
14 Non-Effective Population	0.52	0.61	0.60	0.58	0.65	0.70
15 Energy Consumption/GSF & PD	146,438	117,409	121,107	131,536	121,302	119,729
16 Thermal En Consumption/GSF & PD	19,031	16,776	16,927	16,566	16,089	11,715
17 Electrical En Consumption/GSF & PD	127,408	100,632	104,180	114,970	109,213	108,014
18 WPI by Category						
Training						
Maintenance & Production						
Research, Development & Training						
Storage						
Other Covered Storage						
Hospital & Medical						
Administration						
Resident Housing						
Community Facilities						
Family Housing						
Operational Buildings						
Utility Buildings						
Other						

PD is Percent Distribution from Base Year **Population Served is the total Resident & Non-Resident Population *Eff Pop is Resident + 1/2 Non-Resident

REMARKS

Schofield Barracks



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - Schofield Barracks, HI MACOM WESTCOM CLIMATIC REGION 6 HDD 8 CDD 2,853

UNITS	76	77	78	79	80
1 Energy Consumption & PD	1,818,189	1,623,160	1,518,103	1,566,259	1,616,514
2 Thermal En Cons & PD	1,654,618	1,472,316	1,351,811	1,372,289	1,417,817
3 Electrical En Cons & PD	1,672,231	1,325,844	1,200,291	1,232,970	1,248,497
4 Resident Population & PD	20,653	20,342	21,700	21,088	21,459
5 Non-Resident Population & PD	25,072	25,297	25,840	26,357	26,446
6 Population Serv** & PD	22,343	22,290	22,430	22,964	23,197
7 Effective Population*** & PD	71.5	57.1	58.7	59.4	61.1
8 En Consumption/Pop Served & PD	82.3	66.1	62.1	62.7	65.2
9 En Consumption/En Pop & PD	81.0	66.1	62.1	62.7	65.2
10 Electric En Consumption/Resident Population	4,679	5,591	6,093	6,054	6,023
11 Insulated Air Cond Capacity & PD	357.5	237.1	224.2	230.3	238.91
12 Elec Energy/Ton of Air Cond & PD	11,041	11,759	12,167	12,557	12,616
13 Real Property Inventory BPA & PD	166,488	125,279	124,977	124,731	125,193
14 RME/Income Population	16,984	12,578	12,408	12,211	12,101
15 Energy Consumption/GSF & PD	151,504	112,251	117,479	111,011	114,797
16 Thermal En Consumption/GSF & PD	95	104	112	115	124
17 Electrical En Consumption/GSF & PD	737	867	808	808	826
18 All by Category	972	1,157	1,046	1,046	1,046
Maintenance & Production					
Research, Development & Testing					
Storage					
Other General Storage					
Headquarters & Medical					
Administration					
Bedroom Housing					
Community Facilities					
Family Housing					
Operational Support					
Utility Buildings					
Other					

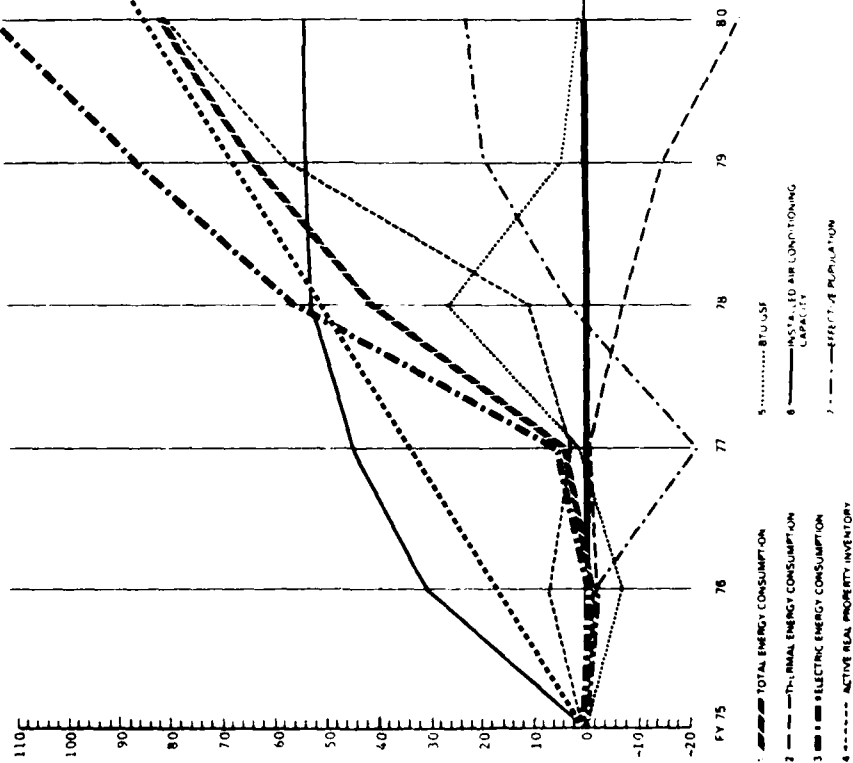
PD at Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *En Pop is Resident & Non-Resident

REMARKS

168.8%

TREND LINE
CORRELATION COEFFICIENT: .95

Fort Shafter



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION _____ CLIMATIC REGION _____ HDD _____ CDD _____

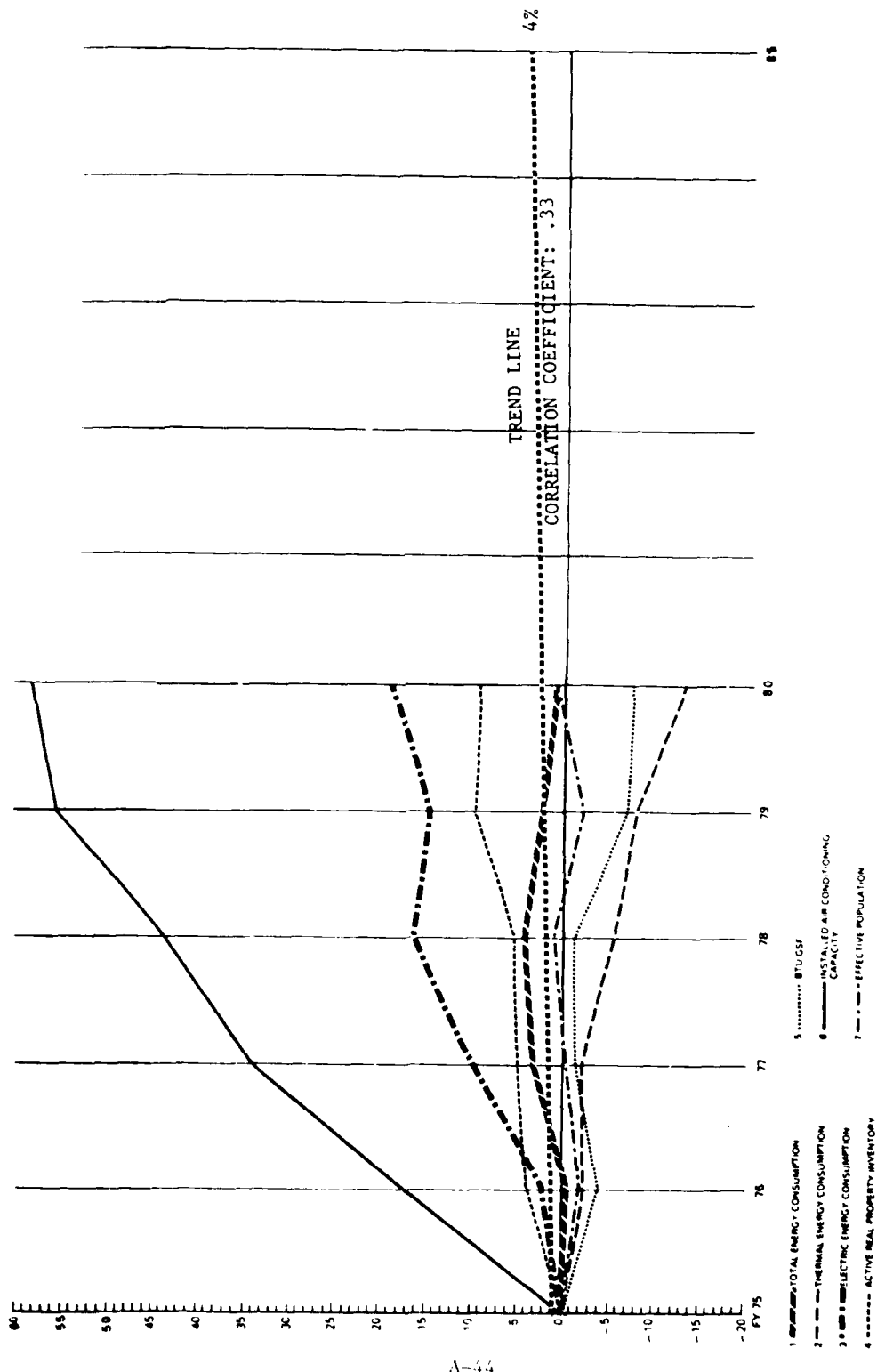
UNITS/FY	75	76	77	78	79	80
1 Energy Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
2 Thermal En. Cons by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
3 Electric En. Cons by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
4 Resident Population by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
5 Non-Resident Population by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
6 Population Saved** by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
7 Effective Population*** by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
8 In Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
9 In Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
10 Electric En. Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
11 Installed Air Cond Capacity by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
12 Fuel Energy Ton of Air Cond by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
13 Fuel Property Inventory (Btu) by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
14 Heat Rate by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
15 Energy Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
16 Thermal En. Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
17 Electrical En. Consumption by PD	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
18 Btu by Category	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Training	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Maintenance & Production	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Research & Development by Training	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Storage	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Other Control Storage	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Hospital & Medical	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Administration	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Bedroom Housing	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Community Facilities	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Family Housing	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Operational Buildings	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211
Other	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211	1,125,211

**PD is Percent Deviation from Base Year **Population Saved is the total Resident & Non-Resident Population

***Eff Pop is Resident + 1/3 Non-Resident

REMARKS

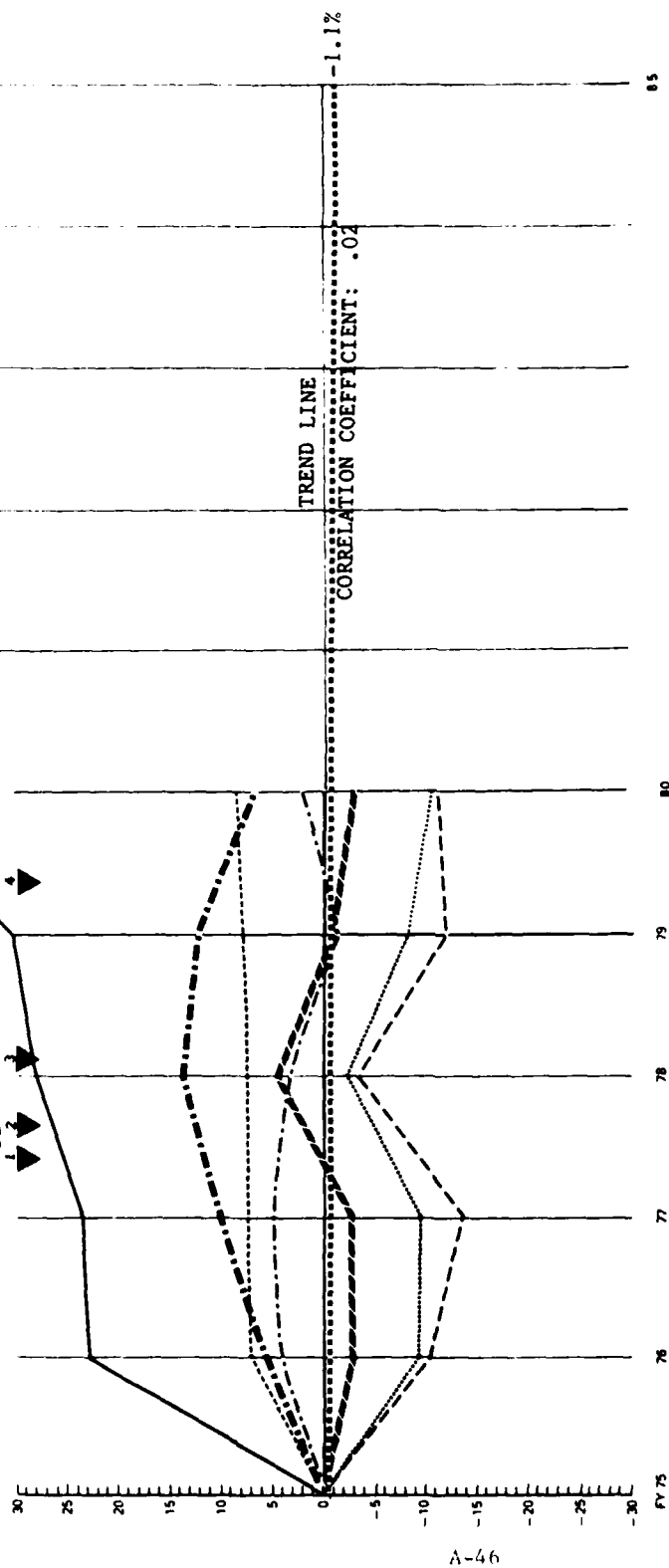
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A-45

Fort Bragg

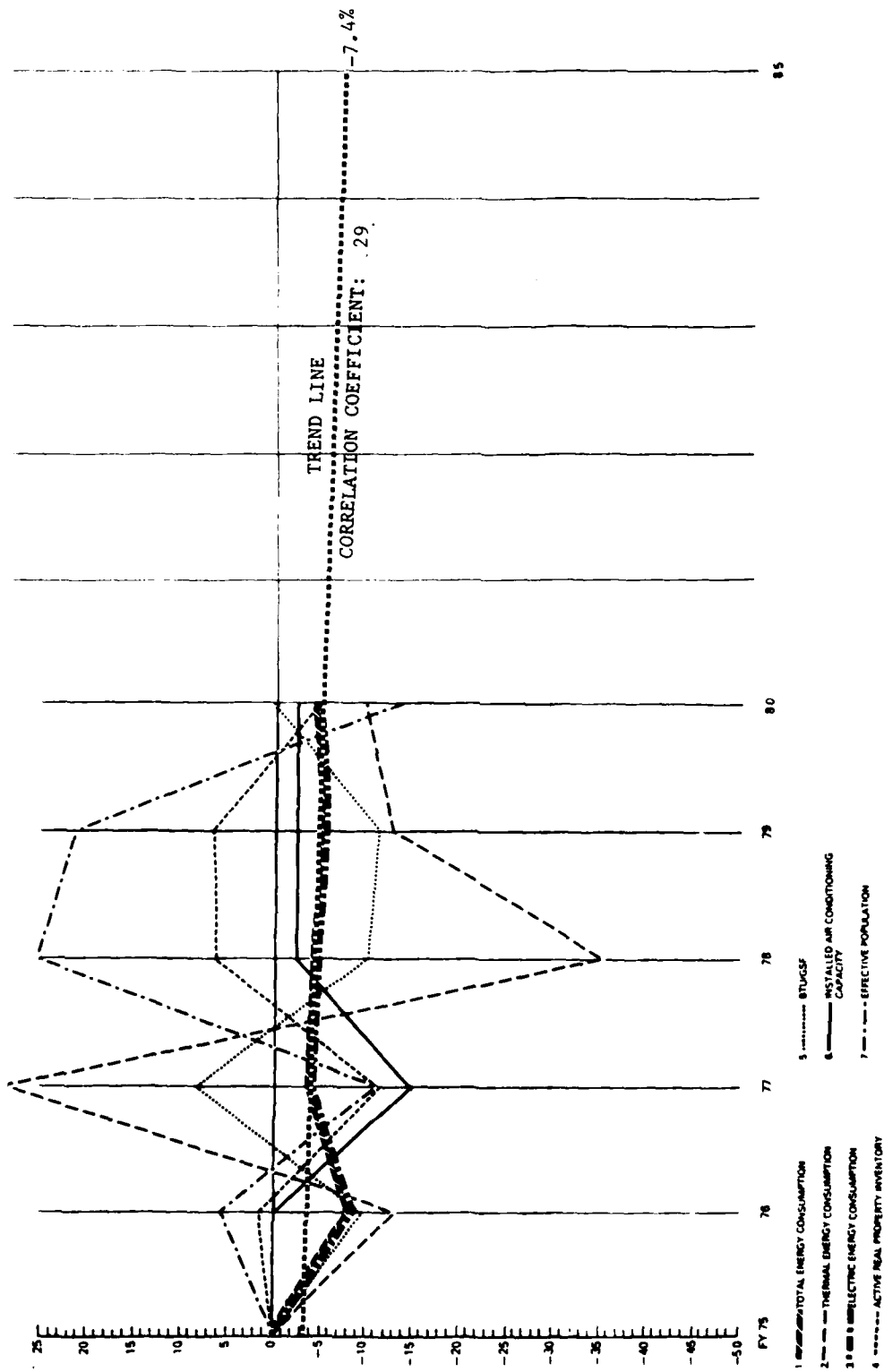


- 1 TOTAL ENERGY CONSUMPTION
 - 2 THERMAL ENERGY CONSUMPTION
 - 3 ELECTRIC ENERGY CONSUMPTION
 - 4 ACTIVE REAL PROPERTY INVENTORY
 - 5 INSTALLED AIR CONDITIONING CAPACITY
 - 6 EFFECTIVE POPULATION
- 1976 EIP - Installation & maintenance of equipment
 20 EIP - Installation & maintenance of equipment
 21 EIP - Installation & maintenance of equipment
 22 EIP - Installation & maintenance of equipment
 23 EIP - Installation & maintenance of equipment
 24 EIP - Installation & maintenance of equipment

U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION									
CLIMATIC REGION MOD CDD									
MACOM									
UNIT/STY	P5	P6	P7	P8	P9	P10	P11	P12	P13
1 Energy Consumption Is PO	5,615,154	5,615,154	5,615,154	5,615,154	5,615,154	5,615,154	5,615,154	5,615,154	5,615,154
2 Thermal En. Cons. Is PO	1,017,524	1,017,524	1,017,524	1,017,524	1,017,524	1,017,524	1,017,524	1,017,524	1,017,524
3 Electrical En. Cons. Is PO	2,547,574	2,547,574	2,547,574	2,547,574	2,547,574	2,547,574	2,547,574	2,547,574	2,547,574
4 Resident Population Is PO	33,549	33,549	33,549	33,549	33,549	33,549	33,549	33,549	33,549
5 Non Resident Population Is PO	5,915	5,915	5,915	5,915	5,915	5,915	5,915	5,915	5,915
6 Population Served** Is PO	51,495	51,495	51,495	51,495	51,495	51,495	51,495	51,495	51,495
7 Electric Population*** Is PO	36,352	36,352	36,352	36,352	36,352	36,352	36,352	36,352	36,352
8 En. Consumption/Pop Served Is PO	134.9	134.9	134.9	134.9	134.9	134.9	134.9	134.9	134.9
9 En. Consumption/Pop Served Is PO	134.7	134.7	134.7	134.7	134.7	134.7	134.7	134.7	134.7
10 Electric En. Consumption/Resident Population	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
11 Installed Air Cond. Capacity Is PO	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8
12 Elec. Energy/Ton of Air Cond. Is PO	20,338.8	20,338.8	20,338.8	20,338.8	20,338.8	20,338.8	20,338.8	20,338.8	20,338.8
13 Fuel Property Inventory BARS Is PO	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
14 NonElectric Population	273,883	273,883	273,883	273,883	273,883	273,883	273,883	273,883	273,883
15 Energy Consumption/GSF Is PO	147,908	147,908	147,908	147,908	147,908	147,908	147,908	147,908	147,908
16 Thermal En. Consumption/GSF Is PO	145,989	145,989	145,989	145,989	145,989	145,989	145,989	145,989	145,989
17 Electrical En. Consumption/GSF Is PO	669	669	669	669	669	669	669	669	669
18 Net Ice Category	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213
Training	38	38	38	38	38	38	38	38	38
Maintenance & Production	1,481	1,481	1,481	1,481	1,481	1,481	1,481	1,481	1,481
Research, Development & Testing	776	776	776	776	776	776	776	776	776
Storage	969	969	969	969	969	969	969	969	969
Other General Storage	7,097	7,097	7,097	7,097	7,097	7,097	7,097	7,097	7,097
Hospital & Medical	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403
Administration	5,975	5,975	5,975	5,975	5,975	5,975	5,975	5,975	5,975
Recreation Housing	637	637	637	637	637	637	637	637	637
Community Facilities	124	124	124	124	124	124	124	124	124
Family Housing	179	179	179	179	179	179	179	179	179
Operational Buildings	44	44	44	44	44	44	44	44	44
Utility Buildings	52	52	52	52	52	52	52	52	52
Other	49	49	49	49	49	49	49	49	49

1 FY 76 ECIP - Insulation and Weatherproofing - \$2,048,027 - Completed (estimated) June 1978
 2 FY 77 ECIP - Install Mercury Vapor Lighting \$217,000 - Completed (estimated) October 1978
 3 FY 77 Family Housing ECIP Improvements - \$218,980 - Completed (estimated) October 1978
 4 FY 78 ECIP - Lighting Conversion - \$2,789,000 - Completed January 1980

Ft Buchanan



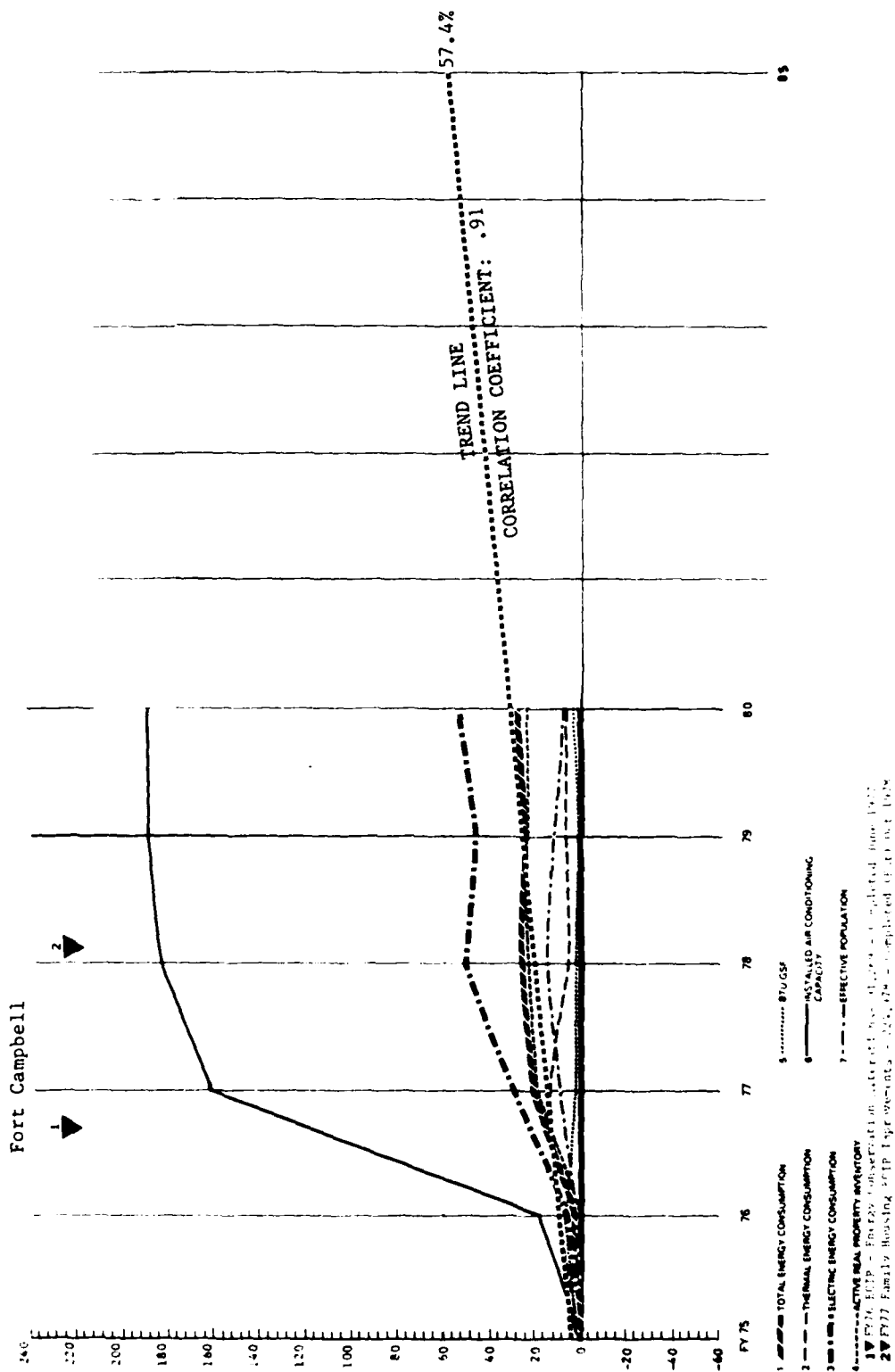
U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION Ft. Buchanan, PR MACOM FORSCOM

UNIT/TYPE	N	n	%	n	%	%	%	%	%
1 Energy Consumption to PD	211,864	195,543	-8.1	204,510	-3.9	203,349	-2.5	201,483	-5.3
2 Thermal En Cons to PD	775	675	-12.9	1,000	29.0	500	-35.5	675	-12.9
3 Electrical En Cons to PD	211,094	194,868	-8.1	203,510	-4.0	202,849	-4.4	200,808	-5.3
4 Resident Population to PD	1,146	1,100	-4.0	1,100	-4.0	1,260	-27.6	959	-16.3
5 Non Resident Population to PD	1,070	5,200	292.5	2,900	171.0	5,817	43.6	6,397	49.9
6 Population Served to PD	3,166	5,500	68.5	4,200	28.7	7,027	116.8	7,156	1.8
7 Effective Population to PD	2,551	2,700	5.8	2,767	2.5	3,199	25.4	3,091	-3.1
8 En Consumption/Pop Served to PD	63.2	15.6	-75.4	48.7	-25.3	28.7	-56.0	27.4	-58.0
9 En Consumption/Pop to PD	81.4	72.4	-11.2	90.2	8.2	63.6	-23.7	65.2	-21.8
10 Electric En Consumption/Resident Population	96.7	149.9	55.0	156.5	61.8	161.0	66.5	209.4	116.5
11 Installed Air Cond Capacity to PD	619	619	0.0	527	-14.9	605	-2.3	605	-2.3
12 Elec Energy/Ton of Air Cond to PD	142.6	114.8	-19.5	186.2	31.2	335.3	82.1	331.9	-0.8
13 Real Property Inventory (RPI) to PD	1,879	1,905	1.4	1,668	-11.2	1,999	6.4	2,005	0.3
14 RPI/Electric Population	.74	.71	-4.1	.74	0.0	.62	-16.2	.65	4.1
15 Energy Consumption/GSF to PD	113,288	102,647	-9.4	112,608	-8.2	101,725	-10.2	100,490	-1.2
16 Thermal En Consumption/GSF to PD	412	354	-14.1	600	45.6	250	-39.3	337	33.2
17 Electrical En Consumption/GSF to PD	112,876	102,293	-9.4	112,008	-8.1	101,475	-10.1	100,153	-1.3
18 RPI by Category									
Training	111	117	5.4	117	0.0	409	262.4	409	0.0
Maintenance & Production	96	116	20.8	5	-94.7	44	-95.5	44	0.0
Research, Development & Testing	116	116	0.0	-	-	-	-	-	-
Storage	116	116	0.0	-	-	-	-	-	-
Other Command Storage	6	6	0.0	204	3200.0	8	33.3	266	1220.0
Hospital & Medical	157	154	-1.9	114	-27.3	114	0.0	114	0.0
Administration	8	8	0.0	76	825.0	76	825.0	76	0.0
Bachelor Housing	631	605	-4.1	485	-23.1	485	0.0	485	0.0
Community Facilities	615	605	-1.6	602	-0.8	602	0.0	602	0.0
Family Housing	24	14	-41.7	58	141.7	-	-	-	-
Operational Buildings	50	50	0.0	58	16.0	57	-1.7	57	-1.7
Other	BASE	BASE	-	58	16.0	57	-1.7	57	-1.7

Population Served is the Total Resident & Non-Resident Population

PD is Personnel Occupancy from Major Area

REGULATIONS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. CAMPBELL, KY MACOM TUSCOM CLIMATIC REGION HDD 1,700 CDD 1,100

UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption to PD	3,158,466	3,405,279	3,405,123	3,465,901	3,496,515	4,016,127
2 Thermal En Cond & PD	1,232,152	1,302,232	1,302,666	1,374,315	1,381,316	1,842,929
3 Electrical En Cond & PD	1,421,109	1,498,545	1,498,559	1,491,586	1,505,009	2,173,198
4 Resident Population to PD	29,132	29,294	32,192	33,818	32,812	31,568
5 Non Resident Population to PD	3,324	3,463	6,022	6,130	5,472	5,461
6 Population Served** to PD	35,056	35,959	38,214	40,000	38,284	37,029
7 Effective Population*** to PD	31,107	31,869	35,199	35,861	32,764	31,514
8 En Consumption/Pop Served to PD	90.1	92.7	99.6	99.1	100.2	107.1
9 En Consumption/Pop Served to PD	101.5	106.9	111.3	110.5	112.2	119.8
10 En Consumption/Person Population	48.8	50.3	56.7	63.1	67.9	68.9
11 Installed Air Cond Capacity to PD	6,906	8,113	17,085	19,503	19,731	19,231
12 Electrical En Cond to PD	205.8	184.8	170.6	100.8	108.2	110.2
13 Heat Property Inventory 1978 to PD	13,301	13,565	15,963	16,564	16,643	16,643
14 Heat Property Inventory 1978 to PD	0.43	0.42	0.47	0.46	0.48	0.48
15 Energy Consumption/GSF to PD	233,923.1	253,461.8	234,371.4	239,718.5	236,117.3	246,314
16 Thermal En Consumption/GSF to PD	122,668.8	140,807.5	123,053.1	110,270.5	110,015.2	110,476
17 Electrical En Consumption/GSF to PD	109,254.4	112,654.3	111,318.3	129,447.9	126,102.1	135,838
18 kWh by Category						
Training	542	466	487	509	515	515
Maintenance & Production	1,520	1,424	1,484	1,574	1,557	1,557
Research, Development & Testing	1,258	1,258	1,117	1,117	1,117	1,117
Storage	Not Available Separately Included Above					
Other Covered Storage	627	627	635	635	649	649
Hospital & Medical	373	373	395	360	313	313
Administrative	4,240	4,310	4,623	4,270	4,884	4,884
Bachelor Housing	830	807	1,050	1,087	1,114	1,114
Community Facilities	3,316	3,291	5,217	6,106	5,900	5,980
Family Housing	184	232	244	253	300	300
Quartermaster Buildings	371	367	58	58	66	66
Other	Not Available					

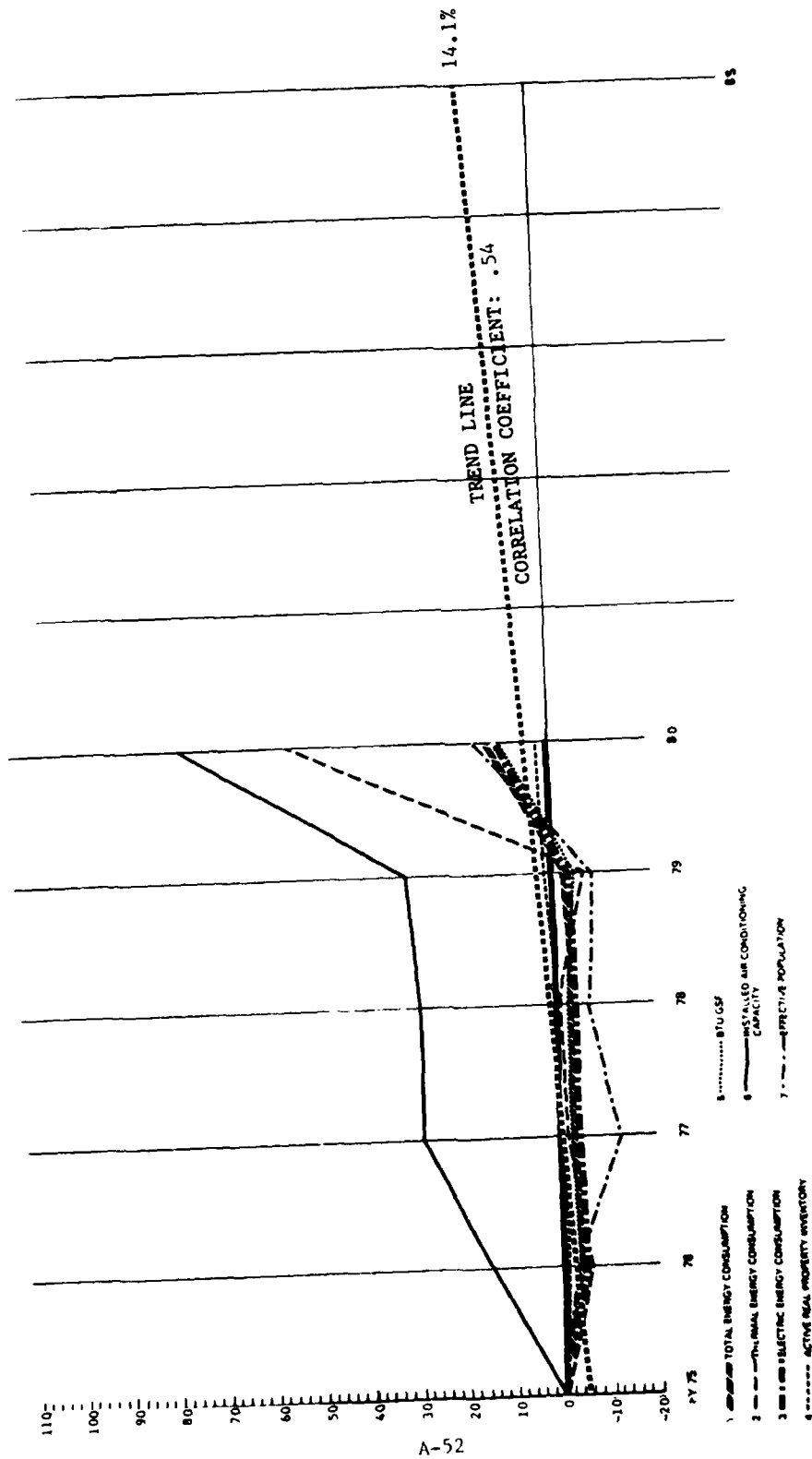
**Population Served in the total Resident & Non Resident Population

1 FY 76 ECIP - Energy Conservation Alterations \$91,249 - Completed June 1977

2 FY 77 Family Housing ECIP Improvements - \$224,978 - Completed (estimated) October 1978

REMARKS

193d Inf Bde, CZ



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION 1-3-13 BDL, CZ MALCOM FORTSUM

UNIT/STY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 Energy Consumption & PD	2,559,317	92,275	2,467,042	17,550	3,750	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465
2 Thermal En Cons & PD	2,467,042	17,550	3,750	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465
3 Electrical En Cons & PD	17,550	3,750	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465
4 Resident Population & PD	17,550	3,750	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465
5 Non Resident Population & PD	3,750	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465
6 Population Served*** & PD	22,300	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465
7 Electric Population*** & PD	19,133	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465
8 En Consumption Served & PD	114.8	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
9 En Consumption Served Pop & PD	133.8	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
10 Electric En Consumption Served Population	140.6	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
11 Installed Air Cond Capacity & PD	8,679	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
12 Elec Energy/Ton of Air Cond & PD	284.3	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
13 Heat Pctivity Inventory WPM & PD	16,156	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
14 Heat Pctivity Inventory WPM & PD	158,413	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
15 Electric Consumption GSF & PD	5,712	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
16 Thermal En Consumption GSF & PD	152,701	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
17 Electrical En Consumption GSF & PD	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
18 WPM by Category	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Training	461	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Maintenance & Production	1,425	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Research, Development & Testing	83	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Storage	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Other Covered Storage	157	850	3,272	1,876	5,666	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Hospital & Medical	850	3,272	1,876	5,666	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Administrative	3,272	1,876	5,666	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Residence Housing	1,876	5,666	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Community Facilities	5,666	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Family Housing	380	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Operational Buildings	188	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Utility Buildings	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE
Other	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE

**PD is Percent Deviation from Base Year

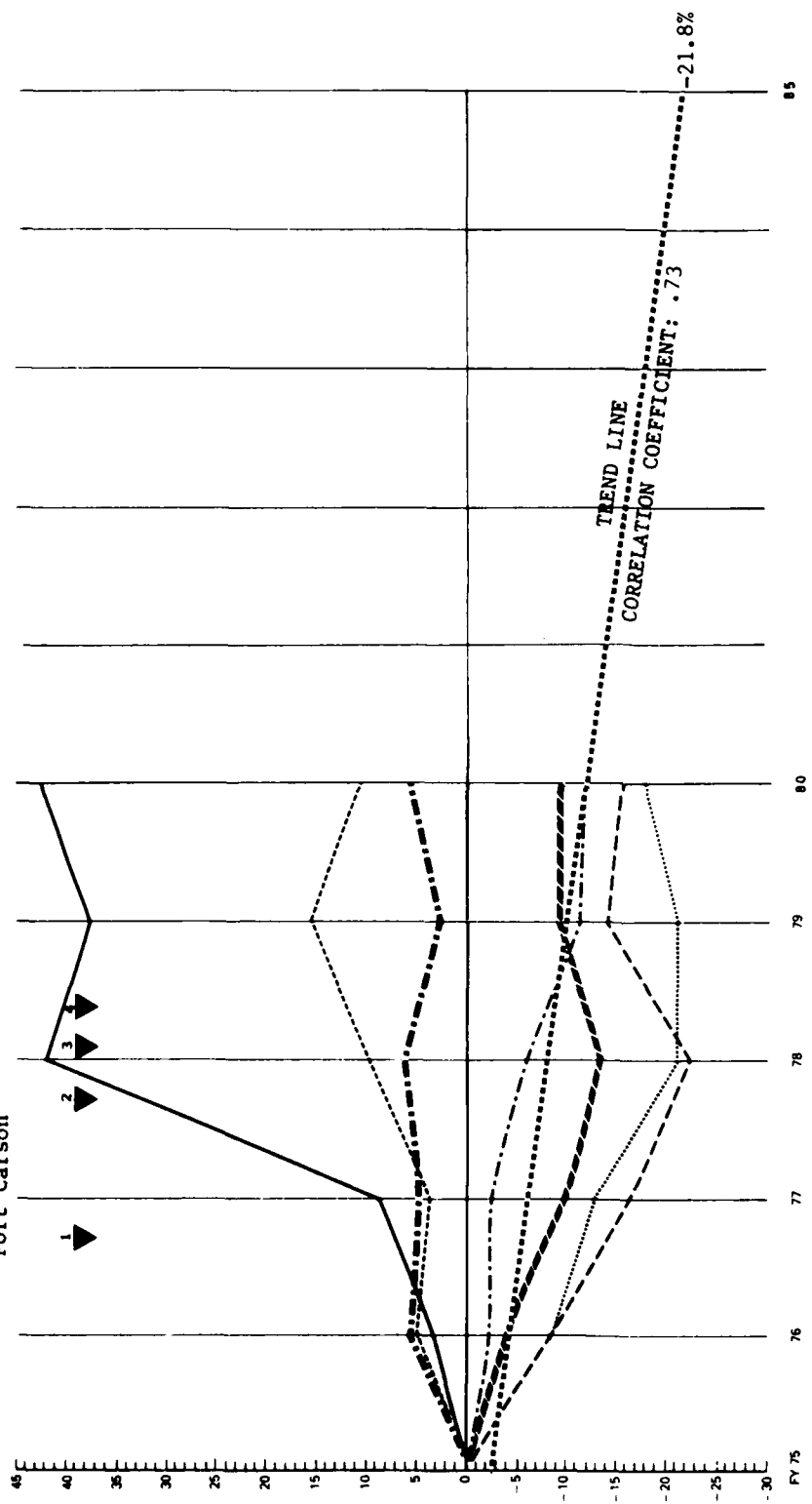
**Population Served is the total Resident & Non Resident Population

**En Pop is Resident + 1/3 Non Resident

Ft. Meador, CZ in FY 1975

REMARKS

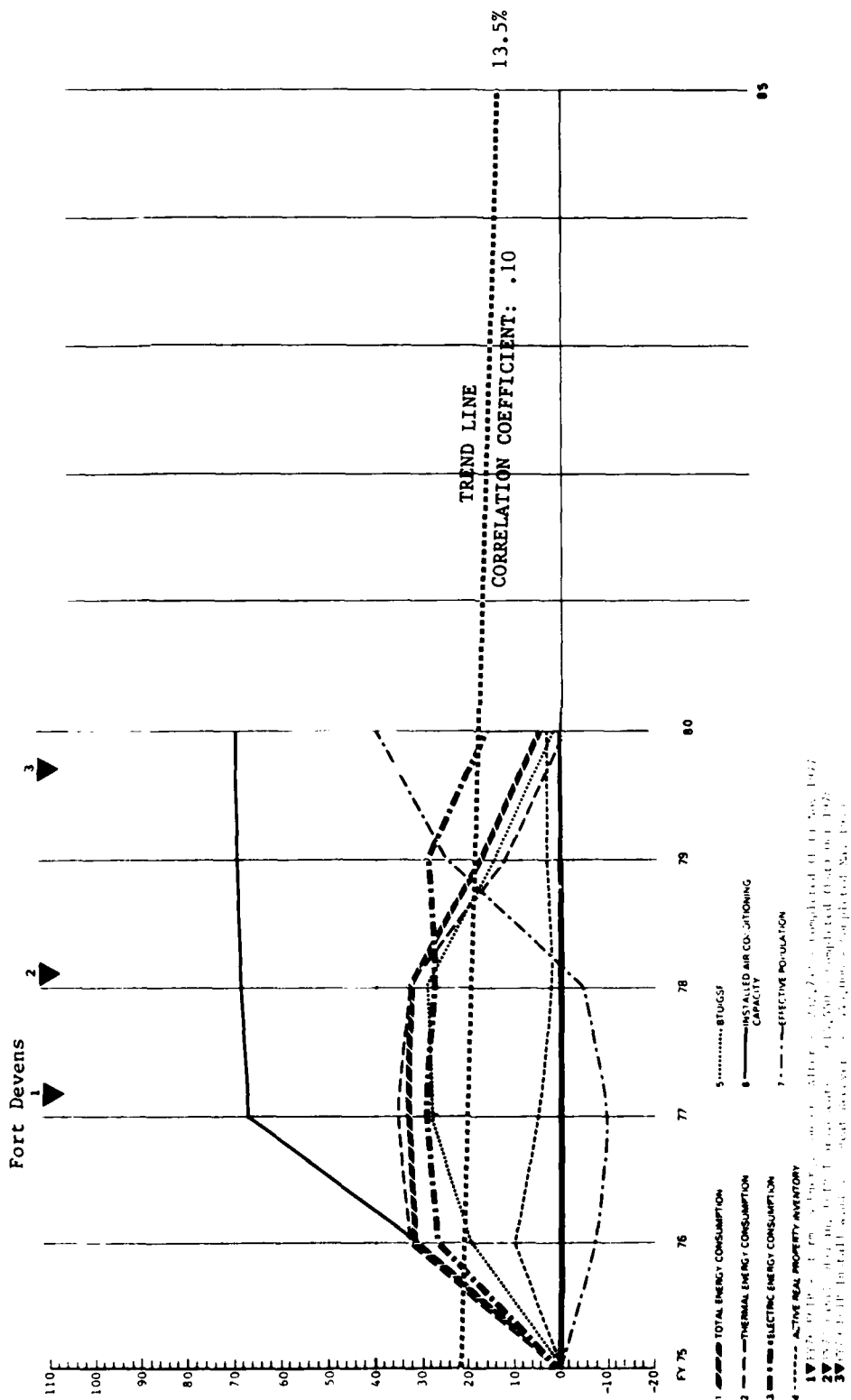
Fort Carson



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - JPL, CARSON, CALIF. MACOM THERMOPHYS CLIMATIC REGION 2 HDD 6,173 CDD 602

UNITS/FY	75	76	77	78	79	80
1 Energy Consumption in PD	2,425,274	2,555,000	2,500,000	2,400,000	2,300,000	2,200,000
2 Thermal En Cons in PD	1,257,251	1,276,000	1,250,000	1,200,000	1,150,000	1,100,000
3 Electrical En Cons in PD	1,168,023	1,279,000	1,250,000	1,200,000	1,150,000	1,100,000
4 Resident Population in PD	16,253	16,253	16,253	16,253	16,253	16,253
5 Non-Resident Population in PD	16,253	16,253	16,253	16,253	16,253	16,253
6 Population Growth in PD	16,253	16,253	16,253	16,253	16,253	16,253
7 Effective Population in PD	16,253	16,253	16,253	16,253	16,253	16,253
8 En Consumption/Pop Served in PD	16,253	16,253	16,253	16,253	16,253	16,253
9 En Consumption/En Pop in PD	16,253	16,253	16,253	16,253	16,253	16,253
10 Installed Air Cond Capacity in PD	16,253	16,253	16,253	16,253	16,253	16,253
11 Electric En Consumption/Resident Population	16,253	16,253	16,253	16,253	16,253	16,253
12 Electric En Consumption/En Pop in PD	16,253	16,253	16,253	16,253	16,253	16,253
13 Real Property Inventory (RPI) in PD	16,253	16,253	16,253	16,253	16,253	16,253
14 RPI/Effective Population	16,253	16,253	16,253	16,253	16,253	16,253
15 Energy Consumption/GSF in PD	16,253	16,253	16,253	16,253	16,253	16,253
16 Thermal En Consumption/GSF in PD	16,253	16,253	16,253	16,253	16,253	16,253
17 Electrical En Consumption/GSF in PD	16,253	16,253	16,253	16,253	16,253	16,253
18 RPI by Category	16,253	16,253	16,253	16,253	16,253	16,253
Training	16,253	16,253	16,253	16,253	16,253	16,253
Maintenance & Production	16,253	16,253	16,253	16,253	16,253	16,253
Research, Development & Testing	16,253	16,253	16,253	16,253	16,253	16,253
Storage	16,253	16,253	16,253	16,253	16,253	16,253
Other General Storage	16,253	16,253	16,253	16,253	16,253	16,253
Medical & Medical	16,253	16,253	16,253	16,253	16,253	16,253
Administration	16,253	16,253	16,253	16,253	16,253	16,253
Bedroom Housing	16,253	16,253	16,253	16,253	16,253	16,253
Community Facilities	16,253	16,253	16,253	16,253	16,253	16,253
Family Housing	16,253	16,253	16,253	16,253	16,253	16,253
Operational Buildings	16,253	16,253	16,253	16,253	16,253	16,253
Utility Buildings	16,253	16,253	16,253	16,253	16,253	16,253
Other	16,253	16,253	16,253	16,253	16,253	16,253

1 FY 76 ECIP - Storms, Insulation and Heating Controls - \$509,410 - Completed June 1977
 2 FY 77 ECIP - Insulation and Electrical Alterations - \$591,217 - Completed (estimated) June 1978
 3 FY 77 Family Housing ECIP Improvements - \$676,587 - Completed (estimated) October 1978
 4 FY 78 ECIP - Convert to Fluorescent Lighting - \$1,209,000 - Completed February 1980



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - FT. DEWES, VA MACOM FURSCORE CLIMATIC REGION HDD 6,425 CDD 560

UNITS	75	76	77	78	79	80
1 Energy Consumption to PD	1,272,153	2,310,409	2,364,265	2,329,058	2,072,663	1,816,211
2 Thermal En Cons to PD	1,240,368	2,278,594	2,332,884	2,307,632	2,040,313	1,784,925
3 Electrical En Cons to PD	511,785	67,815	68,381	67,426	68,358	67,285
4 Resident Population to PD	12,408	12,408	11,875	12,408	12,408	12,408
5 Non Resident Population to PD	2,496	2,496	2,496	2,496	2,496	2,496
6 Population Saved** to PD	13,603	13,603	13,603	13,603	13,603	13,603
7 Effective Population*** to PD	13,603	13,603	13,603	13,603	13,603	13,603
8 In Consumption/Pop Saved to PD	113.6	170.6	172.8	161.7	161.4	161.4
9 In Consumption/Pop to PD	128.4	181.8	189.5	176.3	171.2	161.4
10 Electric En Consumption/Pop to PD	61.2	54.5	57.7	53.5	53.5	53.5
11 Installed Air Cond Capacity to PD	1,810	2,468	3,130	3,130	3,130	3,130
12 Fuel Energy/Ton of Air Cond to PD	24.3	273.8	219.1	219.1	219.1	219.1
13 Heat Property Inventory (Btu) to PD	10,131	11,805	11,805	10,911	11,040	10,974
14 Heat Effective Population	165,111	197,408	210,389	213,659	188,196	167,164
15 Energy Consumption/GSF to PD	115,591	150,160	149,802	151,556	126,090	110,987
16 Thermal En Consumption/GSF to PD	69,410	97,298	97,486	97,486	84,106	76,194
17 Electrical En Consumption/GSF to PD	1,675	1,675	1,675	1,675	1,675	1,675
18 All by Category	1,675	1,675	1,675	1,675	1,675	1,675
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Covered Storage						
Hospital & Medical						
Administration						
Bachelor Housing						
Community Fire Area						
Family Housing						
Quarantine Bus Area						
Utility Buildings						
Other						

**PD is Percent Deviation from Base Year **Population Saved is the total Resident & Non Resident Population

1 FY 76 ECIP - Storms and Energy Conservation Alterations - \$232,742 Completed (estimated) November 1977

2 FY 77 Family Housing ECIP Improvements - \$615,550 - Completed (estimated) October 1978

3 FY 79 ECIP - Install Windows - Heat Recovery - \$465,000 - Completed May 1980

REMARKS



AD-A104 134

COMPUTER SCIENCES CORP FALLS CHURCH VA SYSTEMS DIV
ARMY ENERGY DATA ANALYSIS, FY 80 UPDATE.(U)
JUL 81

F/G 13/1

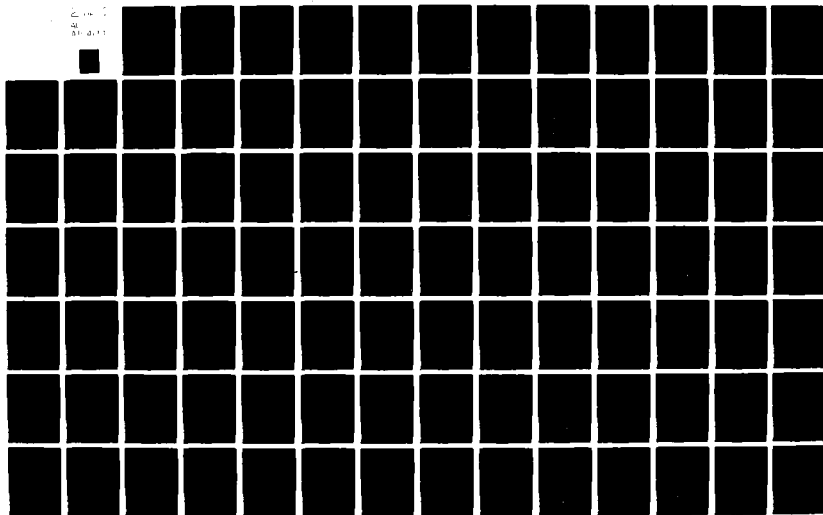
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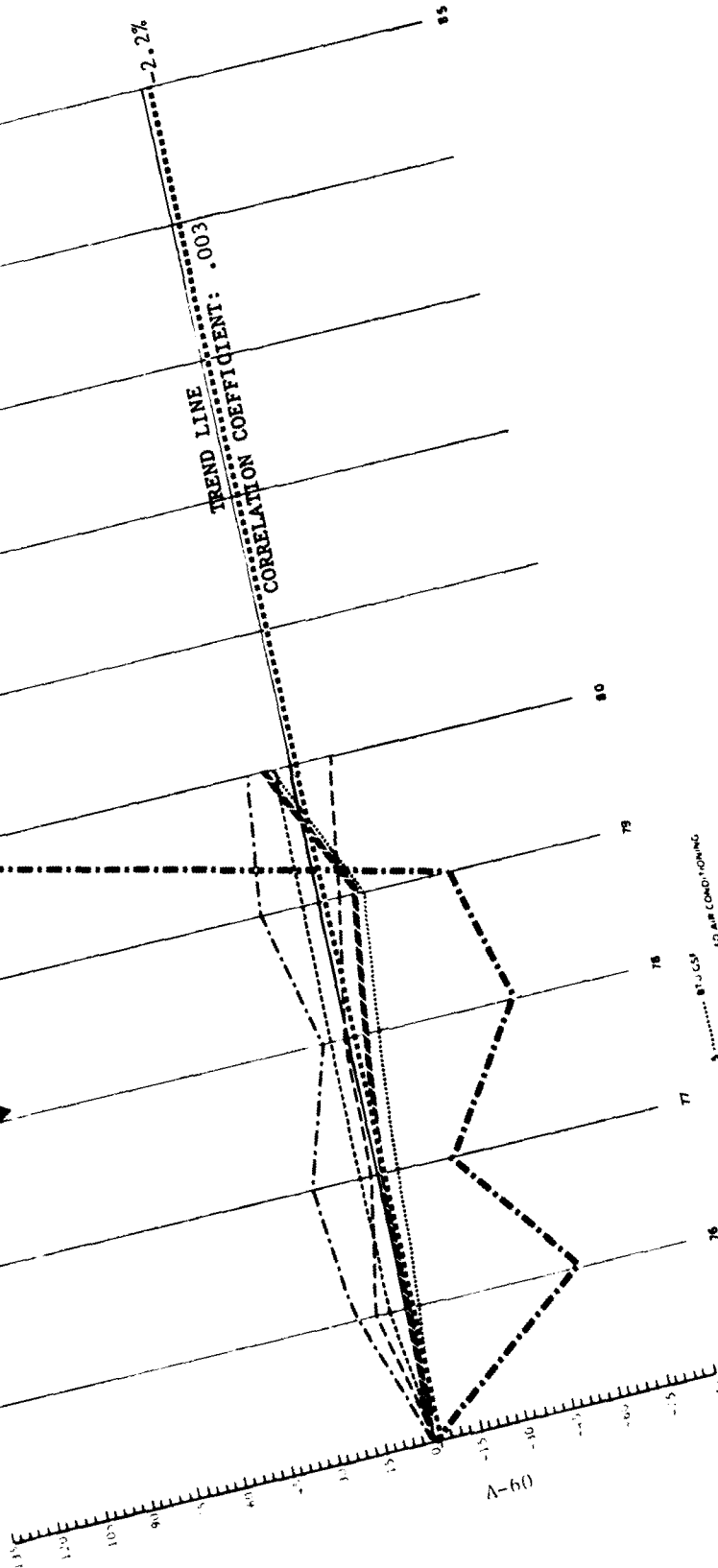
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UNIT/STY	75	76	77	78	79	80
WRTU	632,179	437,272	1,371	494,660	1,145,511	704,141
WRTU	229,055	233,264	1,371	281,957	1,145,511	468,475
WRTU	203,124	214,598	1,371	212,203	1,145,511	235,866
PEOPLE	2,644	2,849	1,371	3,456	1,145,511	1,015
PEOPLE	1,019	1,110	1,371	1,188	1,145,511	1,019
PEOPLE	3,222	3,979	1,371	3,923	1,145,511	4,094
PEOPLE	3,004	3,226	1,371	3,131	1,145,511	3,375
WRTUCAP	116,1	110,0	1,371	126,1	1,145,511	122,0
WRTUCAP	143,9	135,7	1,371	158,0	1,145,511	208,6
WRTUCAP	76,8	75,3	1,371	77,8	1,145,511	78,2
TONS	864,4	912,8	1,371	858,5	1,145,511	821,8
WRTUCAP	1,750	4,729	1,371	4,761	1,145,511	4,773
WRTUCAP	58	1,461	1,371	1,521	1,145,511	1,41
WRTUCAP	246,959	92,571	1,371	103,898	1,145,511	122,848
WRTUCAP	130,889	47,211	1,371	59,272	1,145,511	73,660
WRTUCAP	116,070	45,180	1,371	44,676	1,145,511	51,187
WRTUCAP	354	398	1,371	398	1,145,511	483
WRTUCAP	532	645	1,371	645	1,145,511	588
WRTUCAP	315	677	1,371	677	1,145,511	39
WRTUCAP	28	311	1,371	311	1,145,511	108
WRTUCAP	96	172	1,371	172	1,145,511	222
WRTUCAP	65	2,043	1,371	2,043	1,145,511	2,039
WRTUCAP	137	451	1,371	451	1,145,511	416
WRTUCAP	180	182	1,371	182	1,145,511	182
WRTUCAP	18	13	1,371	13	1,145,511	6
WRTUCAP	5	28	1,371	28	1,145,511	30
WRTUCAP	5	28	1,371	28	1,145,511	3

- 1 Energy Consumption to PD
 - 2 Thermal En Core to PD
 - 3 Electrical En Core to PD
 - 4 Resident Population to PD
 - 5 Non Resident Population to PD
 - 6 Population Survey to PD
 - 7 Effective Population to PD
 - 8 En Consumption/Pop Saved to PD
 - 9 En Consumption/Pop to PD
 - 10 Electric En Consumption/Pop to PD
 - 11 Installed Air Cond Capacity to PD
 - 12 Electric En Consumption/Pop to PD
 - 13 Heat Property Inventory to PD
 - 14 Heat Property Inventory to PD
 - 15 Energy Consumption to PD
 - 16 Thermal En Consumption to PD
 - 17 Electrical En Consumption to PD
 - 18 WRTUCAP to PD
- REMARKS
- WRTUCAP is Percent Conversion from Base Year
- **PD is Percent Conversion from Base Year
- ***ET Pop is Resident + 1/3 Non-Resident

Fort Greely



A-60

- 1 - TOTAL ENERGY CONSUMPTION
2 - THERMAL ENERGY CONSUMPTION
3 - ELECTRIC ENERGY CONSUMPTION
4 - ACTIVE REAL PROPERTY INVENTORY
- 1
2

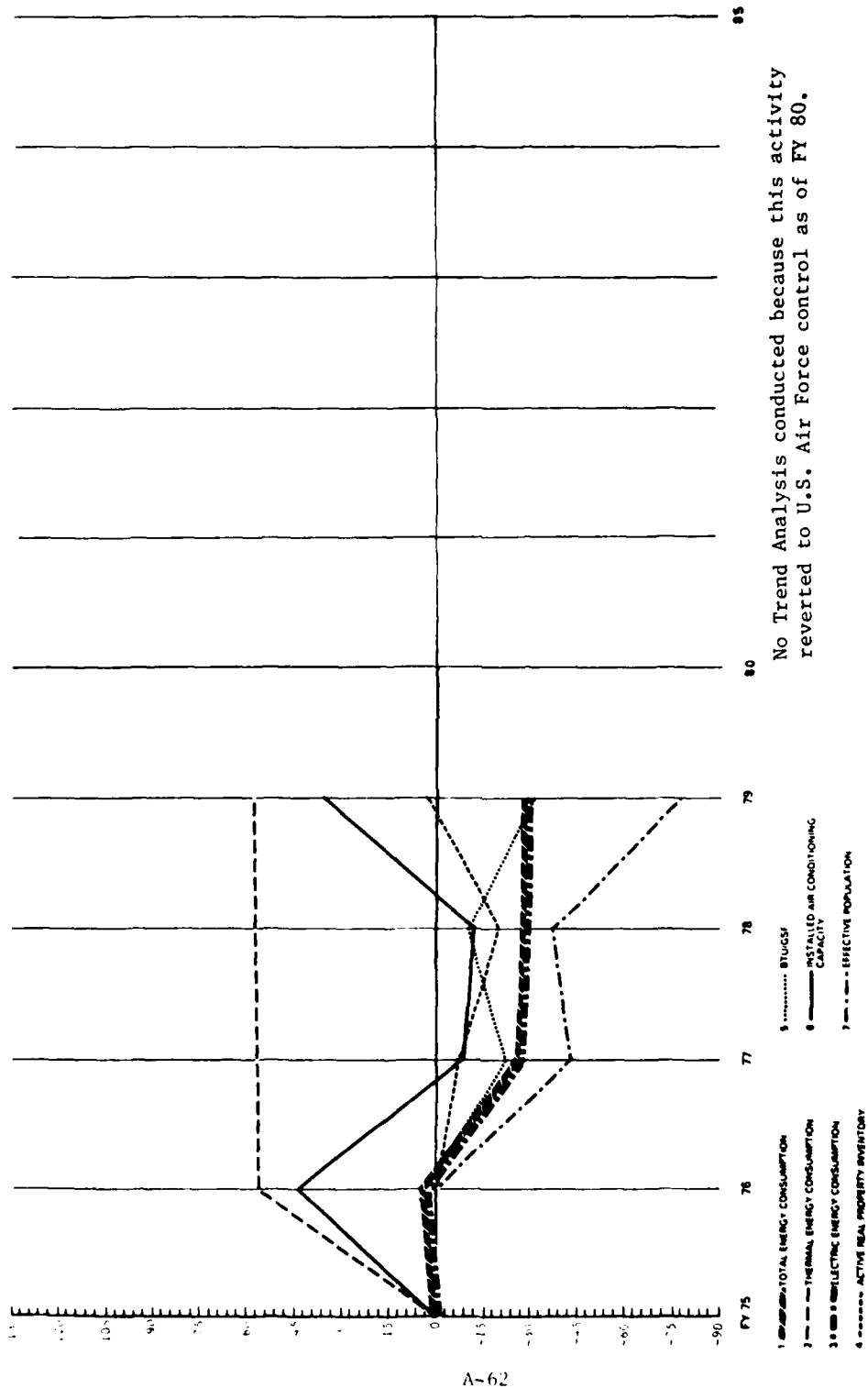
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION										CLIMATIC REGION 1 HDD 13,600 CDD 74										2
FT. GREEN, NV										MACOM										
UNITS/FY	75	76	77	78	79	80	81	82	83	75	76	77	78	79	80	81	82	83	84	
1 Energy Consumption & PD	1,522,215	1,455,086	1,375,000	1,311,111	1,256,086	1,200,000	1,145,000	1,090,000	1,035,000	1,256,086	1,200,000	1,145,000	1,090,000	1,035,000	980,000	925,000	870,000	815,000	760,000	705,000
2 Thermal En Cons & PD	1,112,225	1,052,500	1,000,000	950,000	900,000	850,000	800,000	750,000	700,000	1,052,500	1,000,000	950,000	900,000	850,000	800,000	750,000	700,000	650,000	600,000	550,000
3 Electrical En Cons & PD	502,500	402,586	375,000	351,111	356,086	350,000	345,000	340,000	335,000	402,586	356,086	350,000	345,000	340,000	335,000	330,000	325,000	320,000	315,000	310,000
4 Resident Population & PD	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515
5 Non-Resident Population & PD	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222
6 Population "Served" & PD	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515
7 Effective Population*** & PD	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515
8 En Consumption/Pop Served & PD	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6
9 En Consumption/Pop & PD	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6	2,666.6
10 Electric En Consumption/Resident Population	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
11 Installed Air Cond Capacity & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
12 Electric Energy/Ton of Air Cond & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
13 Real Property Inventory (RPI) & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
14 Intelligence Population	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
15 Energy Consumption/GSF & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
16 Thermal En Consumption/GSF & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
17 Electrical En Consumption/GSF & PD	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
18 RPI by Category	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Training	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Maintenance & Production	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Research, Development & Testing	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Storage	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Other Covered Storage	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Hospital & Medical	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Administration	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Recreation/Housing	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Community Facilities	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Family Housing	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Operational Buildings	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Utility Buildings	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506
Other	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506	1,506

1 W FY 77 Family Housing ECIP Improvements - \$183,105 - Completed (estimated) October 1978
 2 W FY 79 ECIP - Insulation & Heating Controls - \$1,817,000 - Completed September 1980

PD is Percent Deviation from Base Year
 ***Population Served is the total Resident & Non-Resident Population
 **ECIP Pop of Resident + 10 Non-Resident

REMARKS

Homestead AFB

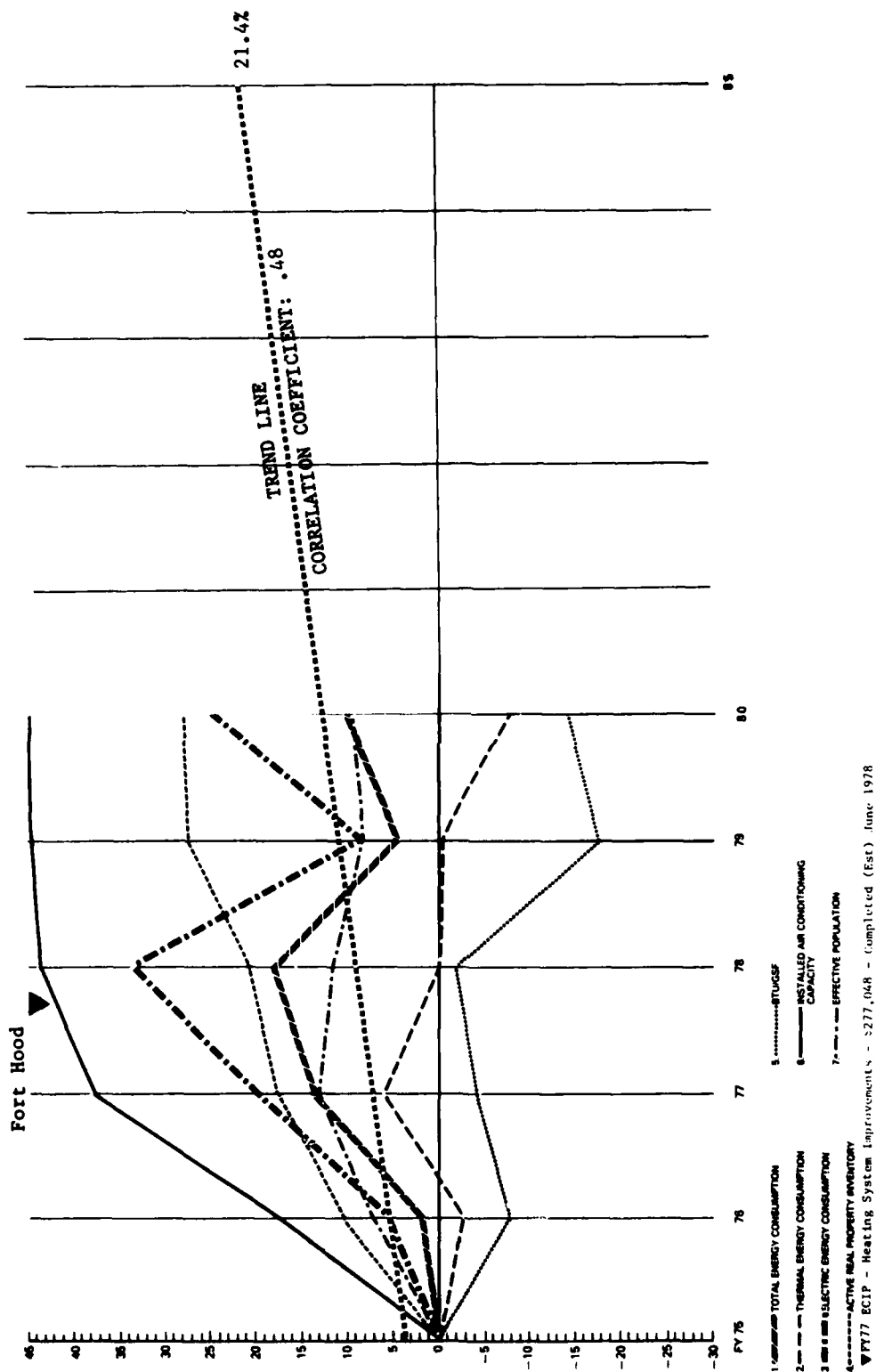


UNITS/FY	76	77	78	79	80
1 Energy Consumption & PD	264,589	272,184	272,184	272,184	272,184
2 Thermal En Cons & PD	275	350	350	350	350
3 Electrical En Cons & PD	264,364	271,834	271,834	271,834	271,834
4 Resident Population & PD	4,170	4,170	4,170	4,170	4,170
5 Non-Resident Population & PD	1,251	1,251	1,251	1,251	1,251
6 Population Served** & PD	5,421	5,421	5,421	5,421	5,421
7 Effective Population*** & PD	4,187	4,187	4,187	4,187	4,187
8 En Consumption/Pop Served & PD	48.8	50.2	50.2	50.2	50.2
9 En Consumption/EN Pop & PD	57.7	59.1	59.1	59.1	59.1
10 Electric En Consumption/Resident Population	63.4	65.2	65.2	65.2	65.2
11 Installed Air Cond Capacity & PD	728	1,041	1,041	1,041	1,041
12 Elec Energy/Ton of Air Cond & PD	363.1	261.1	261.1	261.1	261.1
13 Real Property Inventory (RPI) & PD	306	306	306	306	306
14 RPI/En Consumption/GSF & PD	864,620	889,490	889,490	889,490	889,490
15 Energy Consumption/GSF & PD	735	1,144	1,144	1,144	1,144
16 Thermal En Consumption/GSF & PD	843,915	889,490	889,490	889,490	889,490
17 Electrical En Consumption/GSF & PD	735	1,144	1,144	1,144	1,144
18 RPI by Category					
Training	31	31	31	31	31
Maintenance & Production					
Research, Development & Testing					
Storage					
Other Covered Storage					
Hospital & Medical					
Administration					
Bachelor Housing					
Community Facilities					
Family Housing					
Operational Buildings					
Utility Buildings					
Other					

*PD at Percent Consumption from Base Year **Population Served is the total Resident & Non-Resident Population ***EN Pop is Resident + 1/2 Non-Resident

Reverted to U.S. Air Force Control as of End FY 1979

REMARKS

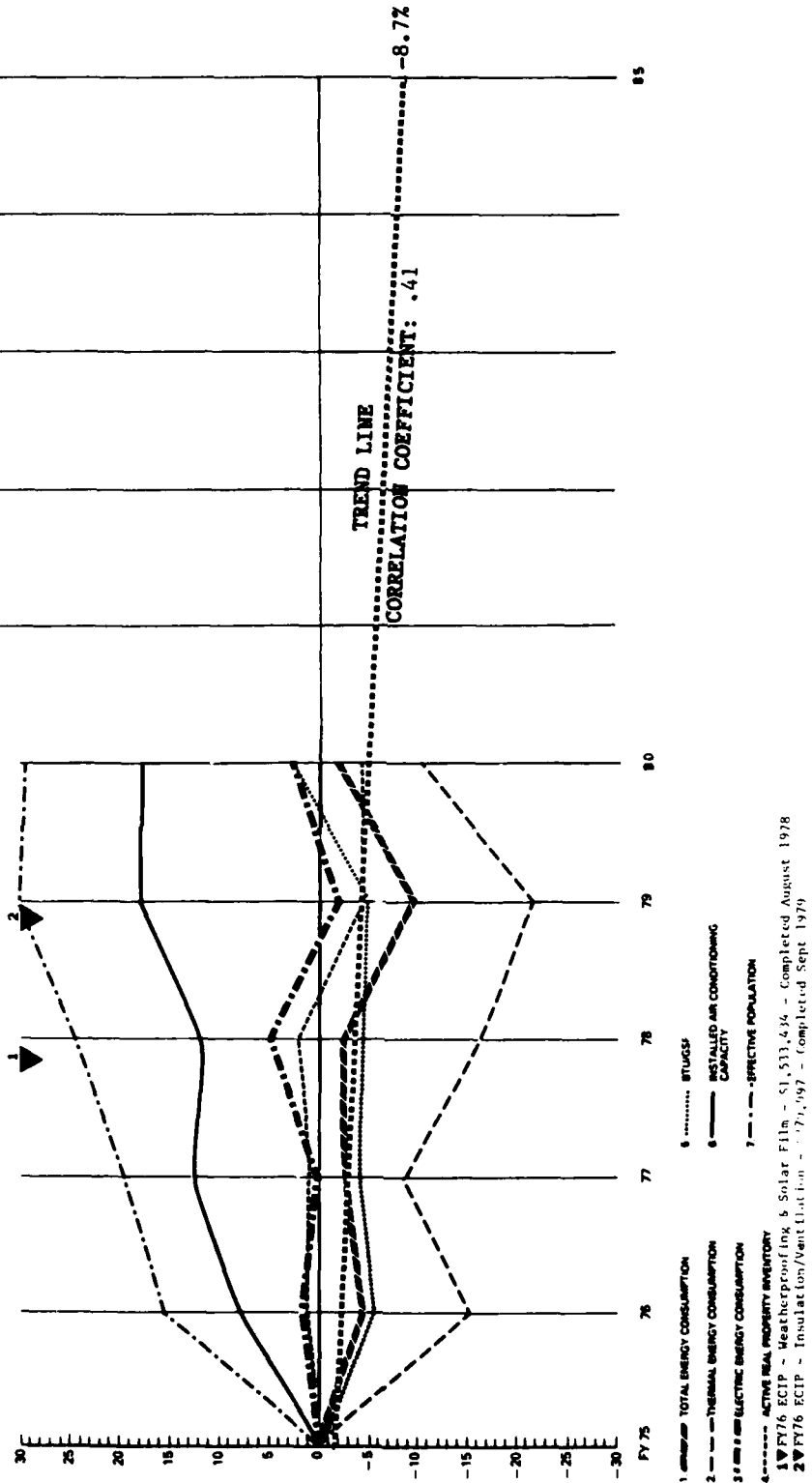


Category	76	77	78	79	80
UTILITY					
MTRU	4,117,156	4,180,358	4,855,367	4,298,246	4,527,740
MTRU	1,893,892	1,839,358	1,893,856	1,893,279	1,768,450
MTRU	2,223,264	2,341,000	2,961,511	2,404,967	2,759,290
PEOPLE	38,105	40,907	43,465	41,021	43,196
PEOPLE	21,221	25,133	25,853	25,209	21,765
PEOPLE	61,876	66,040	69,298	66,267	64,961
PEOPLE	46,029	49,285	51,424	49,900	50,451
MTRU/PEOPLE	66.5	63.3	71.2	64.4	68.7
MTRU/PEOPLE	82.4	84.8	86.4	86.1	88.7
MTRU/PEOPLE	58.3	57.2	58.8	58.0	56.3
TOTAL	22,982	27,006	31,371	33,151	33,289
UTILITY	56.9	86.7	84.3	82.6	83.5
UTILITY	18,110	19,959	21,368	23,035	23,152
UTILITY	39	40	41	46	46
UTILITY	227,361.6	209,447.3	218,730.0	186,596.3	195,566
UTILITY	1,094,377.1	92,156.8	94,033.9	82,102.4	75,521
UTILITY	122,264.4	117,290.4	124,676.0	104,493.9	120,085
UTILITY	519	583	661	685	718
UTILITY	2,063	2,114	2,161	2,208	2,233
UTILITY	1,187	889	906	920	924
UTILITY	375	377	399	410	408
UTILITY	132	133	132	129	128
UTILITY	6,548	6,728	7,020	7,223	7,379
UTILITY	1,558	1,756	1,759	1,755	1,702
UTILITY	6,274	6,402	7,402	8,280	8,280
UTILITY	307	302	338	352	352
UTILITY	108	110	95	84	84
UTILITY	108	110	17	22	22

1 Energy Consumption in PD
2 Thermal in Cans & PD
3 Electrical in Cans & PD
4 Residential Population in PD
5 Non-Residential Population in PD
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FT 77 SCIP - Heating System Improvements - \$277,048 - Completed (estimated) June 1978

Fort Sam Houston



UNITS	75	76	77	78	79	80
1 Energy Consumption & PD	1,986,262	1,896,817	1,928,900	1,932,674	1,803,896	1,945,697
2 Thermal En Cons & PD	215,055	606,988	655,826	599,129	559,208	641,300
3 Electrical En Cons & PD	1,771,207	1,289,829	1,273,074	1,333,545	1,244,688	1,304,397
4 Resident Population & PD	9,160	10,362	11,466	12,174	12,749	12,387
5 Non Resident Population & PD	11,280	13,868	11,931	11,648	12,210	13,079
6 Population Served*** & PD	20,440	24,230	23,397	23,822	25,019	25,466
7 Effective Population*** & PD	12,920	14,964	15,190	16,057	16,839	16,769
8 En Consumption/Pop Served & PD	97.2	78.4	82.9	81.1	72.1	76.4
9 En Consumption/Pop Served & PD	153.7	126.8	125.3	120.4	107.1	116.2
10 Basic En Consumption/Pop Served & PD	138.8	124.7	111.2	109.5	97.6	105.3
11 Installed Air Cond Capacity & PD	13,389	14,487	15,087	14,940	15,756	15,756
12 Elec Energy/Pop Served & PD	94.9	89.0	84.4	89.3	79.0	82.8
13 Real Property Inventory 1978 & PD	10,819	10,934	10,940	11,038	10,320	10,360
14 Real Property Inventory 1979 & PD	84	73	71	69	61	62
15 Energy Consumption/GSF & PD	183,590	173,481	176,316	175,093	174,796	187,809
16 Thermal En Consumption/GSF & PD	66,093	55,214	59,948	54,279	54,187	61,902
17 Electrical En Consumption/GSF & PD	117,497	118,267	116,368	120,816	120,609	125,907
18 kWh by Category						
Training	994	1,026	1,049	913	913	939
Maintenance & Production	651	474	478	477	403	395
Research, Development & Training	27	28	28	28	28	28
Storage	1,693	1,757	287	287	12	11
Other Central Storage	251	294	1,478	1,558	1,262	1,275
Hospital & Medical	1,044	998	884	1,012	998	1,190
Administration	2,264	2,313	2,305	2,306	2,299	1,918
Bachelor Housing	555	546	966	997	960	1,107
Community Frt Bns	2,460	2,464	2,469	2,469	2,454	2,480
Family Housing	89	111	108	104	86	90
Operational Bn Bnps	87	79	77	75	67	67
Utility Buildings	BASE	36	36	34	32	32
Other						

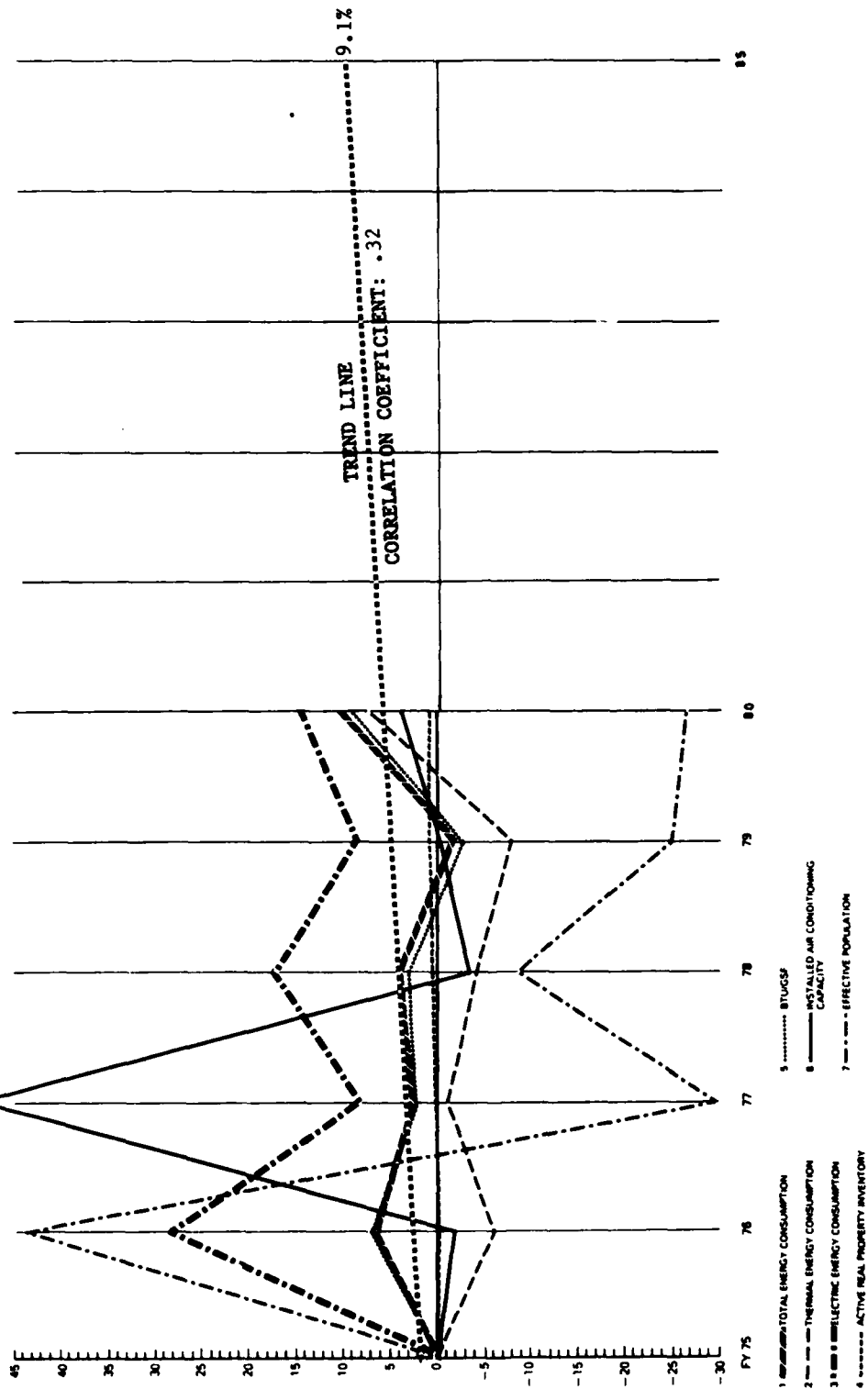
*PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population ***En Pop is Resident + 1/2 Non-Resident

1 FY 76 ECIP - Weatherproofing and Solar Film - \$1,533,436 - Completed August 1978

2 FY 76 ECIP - Insulation/Ventilation - \$279,997 - Completed September 1979

REMARKS

Fort Indiantown Gap



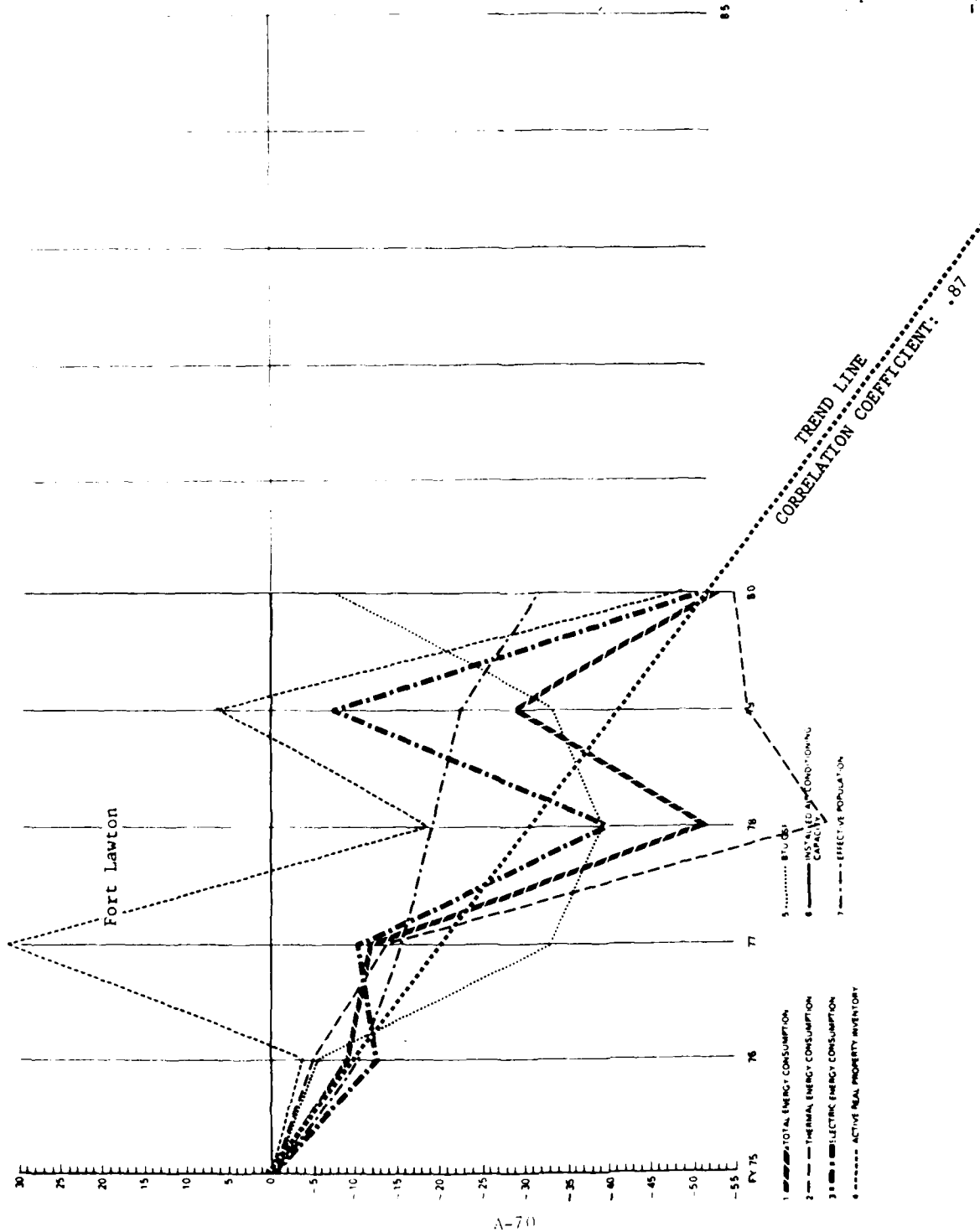
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - MACOM - CLIMATE REGION - HDO - CDO - 9-71

UNIT/STY	76	77	78	79	80
1 Energy Consumption to PD	11,927.2	11,927.2	11,927.2	11,927.2	11,927.2
2 Thermal En. Cons. to PD	4,444.44	4,444.44	4,444.44	4,444.44	4,444.44
3 Electrical En. Cons. to PD	7,482.78	7,482.78	7,482.78	7,482.78	7,482.78
4 Resident Population to PD	1,000	1,000	1,000	1,000	1,000
5 Non-Resident Population to PD	1,000	1,000	1,000	1,000	1,000
6 Population Served** to PD	2,000	2,000	2,000	2,000	2,000
7 Effective Population*** to PD	2,000	2,000	2,000	2,000	2,000
8 En. Consumption/Pop. Served to PD	11.9272	11.9272	11.9272	11.9272	11.9272
9 En. Consumption/Pop. to PD	11.9272	11.9272	11.9272	11.9272	11.9272
10 Electric En. Consumption/Resident	7.48278	7.48278	7.48278	7.48278	7.48278
11 Installed Air Cond. Capacity to PD	1,000	1,000	1,000	1,000	1,000
12 Electric En. Consumption/Air Cond. to PD	7.48278	7.48278	7.48278	7.48278	7.48278
13 Heat Property Inventory (Btu) to PD	1,000	1,000	1,000	1,000	1,000
14 Heat Property Inventory (Btu) to PD	1,000	1,000	1,000	1,000	1,000
15 Energy Consumption/GSF to PD	11.9272	11.9272	11.9272	11.9272	11.9272
16 Thermal En. Consumption/GSF to PD	4.44444	4.44444	4.44444	4.44444	4.44444
17 Electrical En. Consumption/GSF to PD	7.48278	7.48278	7.48278	7.48278	7.48278
18 pop by Category					
Training					
Maintenance & Production					
Research, Development & Testing					
Storage					
Other Covered Storage					
Hospital & Medical					
Administration					
Bachelor Housing					
Community Facilities					
Family Housing					
Operational Buildings					
Utility Buildings					
Other					

**Population Served is the total Resident & Non-Resident Population

*PD is Percent Division from Base Year

REMARKS: Includes Okla. Support Center, Pa. - No Okla. Support Center Report for FY 76 so Data was Estimated Except for RPI by Category which Reflects Ft. Inflation Gap only



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION _____ MACOM _____ CLIMATIC REGION _____ HDD _____ CDD _____

UNIT/STY	PS	70	77	78	79	80
1 Energy Consumption & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
2 Thermal En. Cons. & PD	78.5	78.5	78.5	78.5	78.5	78.5
3 Electric En. Cons. & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
4 Resident Population & PD	556	556	556	556	556	556
5 Non-Resident Population & PD	62	62	62	62	62	62
6 Population Sequestered & PD	62	62	62	62	62	62
7 Electric Population*** & PD	57	57	57	57	57	57
8 En. Consumption/Pop Served to PD	2,76.3	2,76.3	2,76.3	2,76.3	2,76.3	2,76.3
9 En. Consumption/Pop to PD	1,811.1	1,811.1	1,811.1	1,811.1	1,811.1	1,811.1
10 Electric En. Consumption/Resident Population	1,811.1	1,811.1	1,811.1	1,811.1	1,811.1	1,811.1
11 Installed Air Cond Capacity & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
12 Electric Energy/Ton of Air Cond & PD	94.3	94.3	94.3	94.3	94.3	94.3
13 Total Property Inventory (RPT) & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
14 Total Inactive Population	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
15 Energy Consumption/GSF & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
16 Thermal En. Consumption/GSF & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
17 Electric En. Consumption/GSF & PD	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
18 by Category						
Training	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Maintenance & Production	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Research, Development & Testing	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Storage	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Other Covered Storage	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Hospital & Medical	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Administration	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Bachelor Housing	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Community Facilities	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Family Housing	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Operational Buildings	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Utility Buildings	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5
Other	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5	1,015.5

***Population Served is the total Resident & Non-Resident Population

**PD is Percent Deviation from Base Year

***HDD is Heating Degree Days

***CDD is Cooling Degree Days

REMARKS

U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION MACOM CLIMATIC REGION HDD CDD

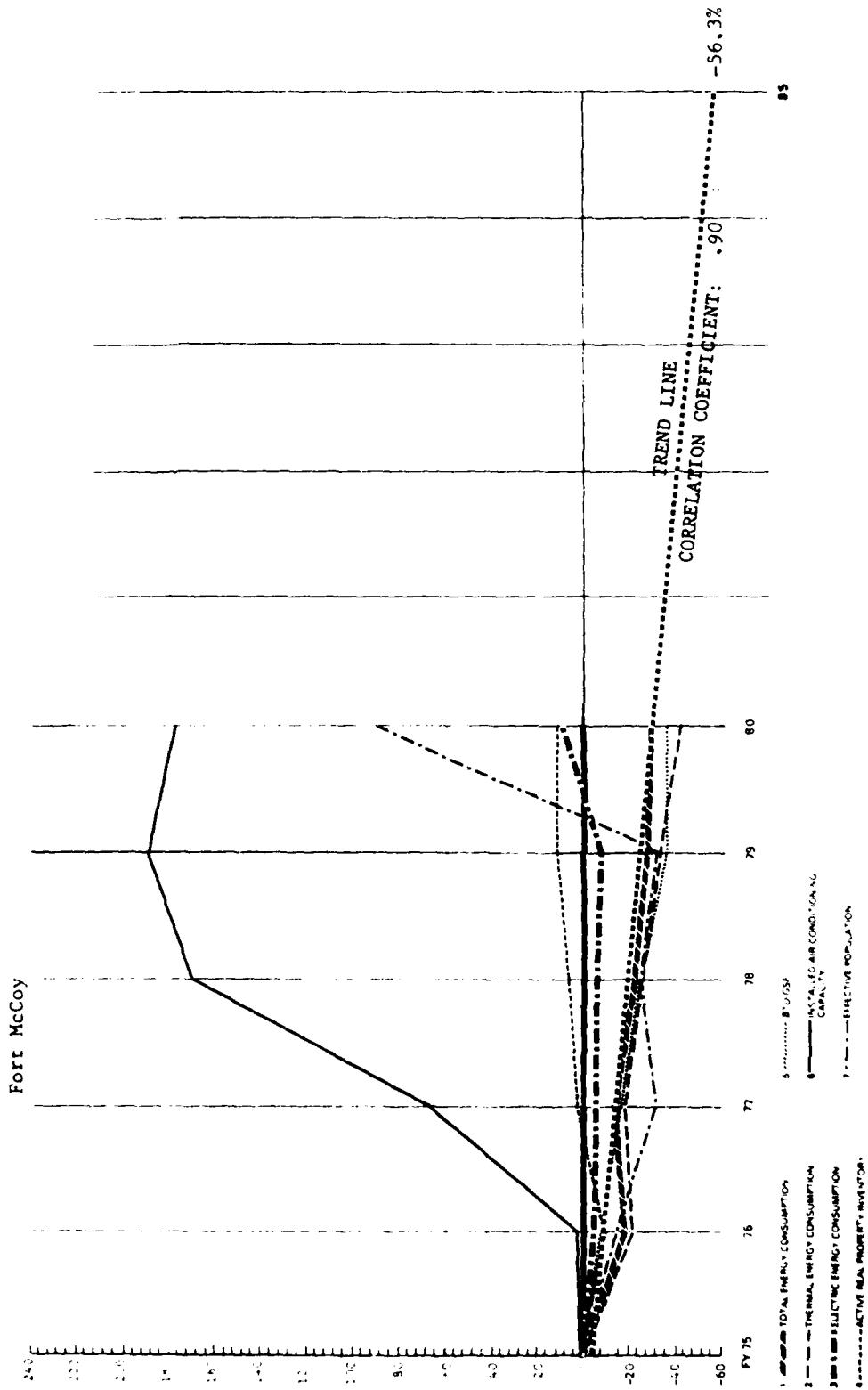
UNITS	75	76	77	78	79	80
1 Energy Consumption to PD	3,002,000	3,002,000	3,002,000	3,002,000	3,002,000	3,002,000
2 Thermal En Cons to PD	2,422,453	2,422,453	2,422,453	2,422,453	2,422,453	2,422,453
3 Electrical En Cons to PD	1,578,299	1,578,299	1,578,299	1,578,299	1,578,299	1,578,299
4 Resident Population to PD	31,272	31,272	31,272	31,272	31,272	31,272
5 Non Resident Population to PD	3,214	3,214	3,214	3,214	3,214	3,214
6 Population Served to PD	34,486	34,486	34,486	34,486	34,486	34,486
7 Effective Population to PD	35,519	35,519	35,519	35,519	35,519	35,519
8 En Consumption/Pop Served to PD	105.1	105.1	105.1	105.1	105.1	105.1
9 En Consumption/Pop Served to PD	112.5	112.5	112.5	112.5	112.5	112.5
10 Electric En Consumption/Resident Population	48.9	48.9	48.9	48.9	48.9	48.9
11 Installed Air Cond Capacity to PD	3,113	3,113	3,113	3,113	3,113	3,113
12 Elec Energy/Ton of Air Cond to PD	3,434.1	3,434.1	3,434.1	3,434.1	3,434.1	3,434.1
13 Real Property Inventory (RPI) to PD	12,847	12,847	12,847	12,847	12,847	12,847
14 RPI/Effective Population	356	356	356	356	356	356
15 Energy Consumption/GSF to PD	201,338	201,338	201,338	201,338	201,338	201,338
16 Thermal En Consumption/GSF to PD	116,776	116,776	116,776	116,776	116,776	116,776
17 Electrical En Consumption/GSF to PD	84,562	84,562	84,562	84,562	84,562	84,562
18 RPI by Category	104	104	104	104	104	104
Maintenance & Production	1,561	1,561	1,561	1,561	1,561	1,561
Research, Development & Testing	2,538	2,538	2,538	2,538	2,538	2,538
Source	625	625	625	625	625	625
Other Command Support	1,010	1,010	1,010	1,010	1,010	1,010
Medical & Medical	6,135	6,135	6,135	6,135	6,135	6,135
Administration	1,511	1,511	1,511	1,511	1,511	1,511
Community Facilities	5,617	5,617	5,617	5,617	5,617	5,617
Family Housing	137	137	137	137	137	137
Operational Buildings	131	131	131	131	131	131
Utility Buildings	131	131	131	131	131	131
Other	131	131	131	131	131	131

**PD is Percent Deviation from Base Year **Population Served is the total Resident & Non Resident Population

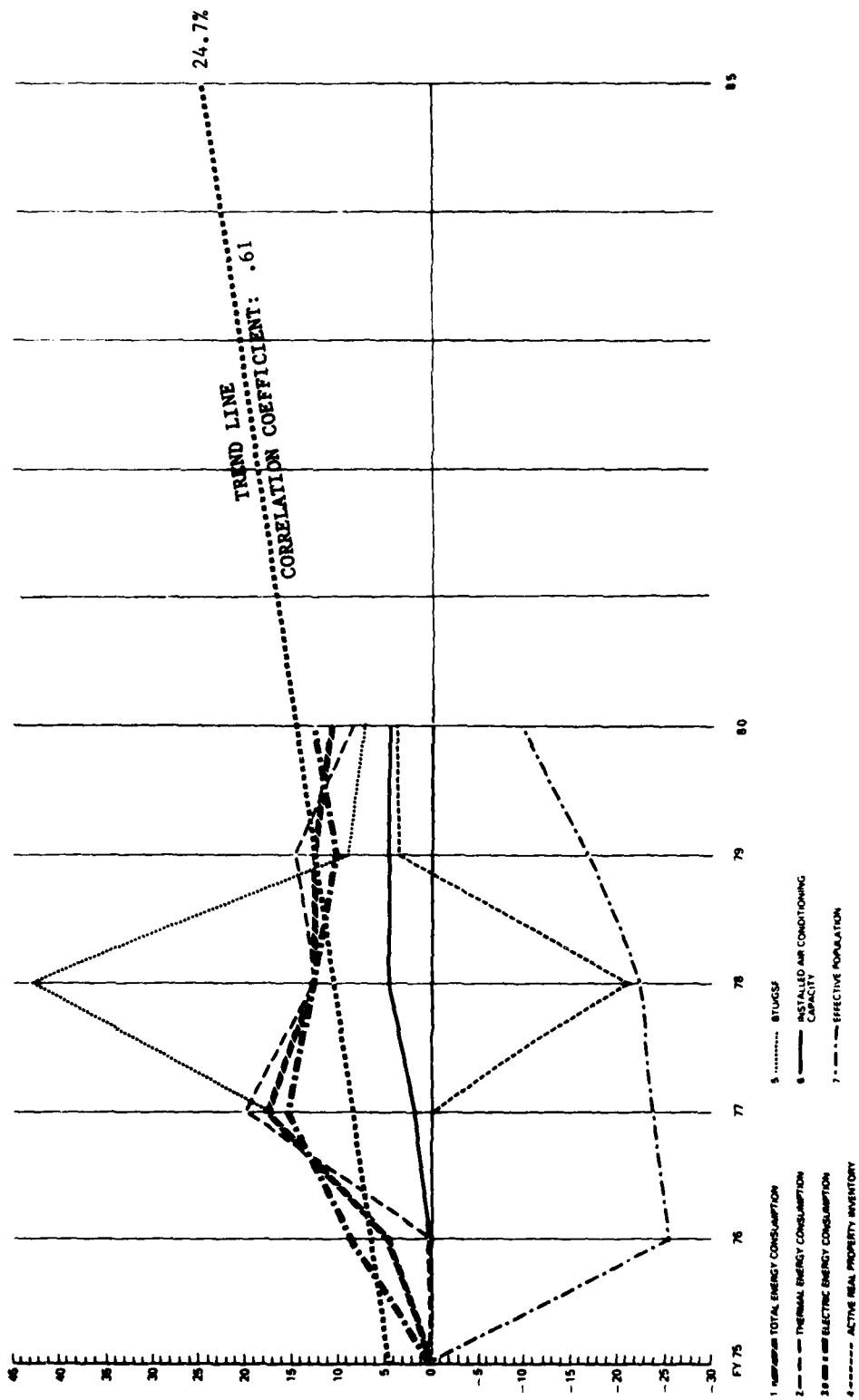
1 MAY 77 ECIP - Improve Lighting - \$166,118 - Completed (estimated) June 1978

2 MAY 77 Family Housing ECIP Improvements - \$1,015,000 - Completed (estimated) October 1978

REMARKS



Fort McPherson



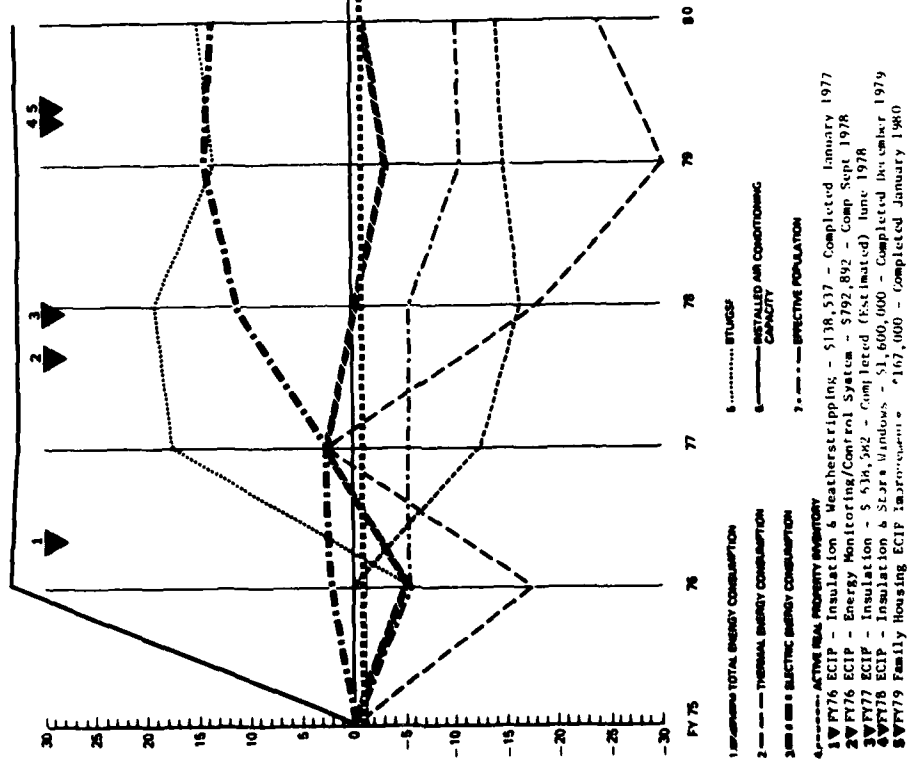
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. HEDDERSON, CA. MACOM FORESCOT CLIMATIC REGION 4 HDD 3,005 CDD 1,549

UNITARY	%	%	%	%	%	%	%	%	%
WETU	681,923	713,750	1,471	1,471	1,471	1,471	1,471	1,471	1,471
WETU	320,516	321,188	1,021	1,021	1,021	1,021	1,021	1,021	1,021
WETU	361,413	392,562	1,081	1,081	1,081	1,081	1,081	1,081	1,081
PEOPLE	922	917	1,000	1,000	1,000	1,000	1,000	1,000	1,000
PEOPLE	7,417	6,453	1,000	1,000	1,000	1,000	1,000	1,000	1,000
PEOPLE	8,623	5,890	1,000	1,000	1,000	1,000	1,000	1,000	1,000
PEOPLE	3,471	2,588	1,000	1,000	1,000	1,000	1,000	1,000	1,000
WETU	80,9	121,2	1,49,81	1,49,81	1,49,81	1,49,81	1,49,81	1,49,81	1,49,81
WETU	396,4	275,8	1,40,41	1,40,41	1,40,41	1,40,41	1,40,41	1,40,41	1,40,41
WETU	366,3	619,0	1,15,01	1,15,01	1,15,01	1,15,01	1,15,01	1,15,01	1,15,01
WETU	3,917	1,995	1,0,41	1,0,41	1,0,41	1,0,41	1,0,41	1,0,41	1,0,41
WETU	8,607	8,611	1,0,11	1,0,11	1,0,11	1,0,11	1,0,11	1,0,11	1,0,11
WETU	2,68	3,33	1,34,27	1,34,27	1,34,27	1,34,27	1,34,27	1,34,27	1,34,27
WETU	79,229	82,888	1,4,61	1,4,61	1,4,61	1,4,61	1,4,61	1,4,61	1,4,61
WETU	37,238	37,300	1,0,21	1,0,21	1,0,21	1,0,21	1,0,21	1,0,21	1,0,21
WETU	61,931	65,588	1,8,61	1,8,61	1,8,61	1,8,61	1,8,61	1,8,61	1,8,61
WETU	49	49	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	751	751	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	5,697	5,701	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	185	185	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	588	588	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	363	363	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	511	511	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	135	135	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	47	47	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01
WETU	81	81	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01	1,0,01

100% is Percent Consumption from Base Year

REMARKS

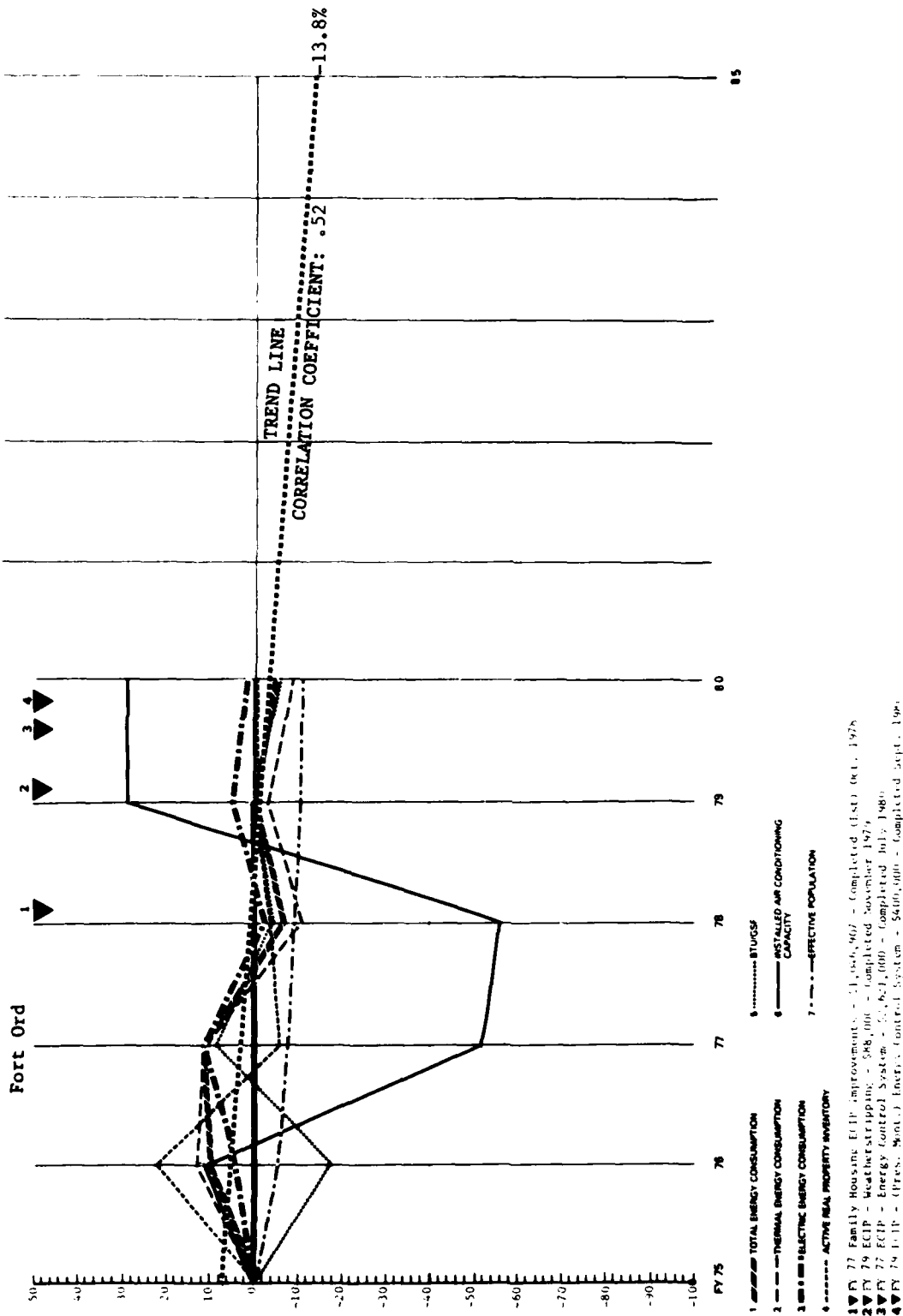
Fort Meade



UNITARY	76	77	78	79	80
1 Energy Consumption to PD	4,165,653	4,271,407	4,159,688	4,091,581	4,110,537
2 Thermal En Cons to PD	1,336,687	1,365,849	1,327,830	1,326,043	1,232,200
3 Electrical En Cons to PD	2,828,966	2,905,558	2,831,858	2,765,538	2,878,337
4 Resident Population to PD	22,085	18,901	17,438	17,772	17,494
5 Non Resident Population to PD	21,191	20,911	20,013	18,311	17,455
6 Population to PD	43,276	39,812	37,451	36,083	34,949
7 Effective Population to PD	29,755	28,245	28,128	26,666	26,666
8 En Consumption/Person to PD	140.0	139.2	139.2	139.2	139.2
9 En Consumption/Person to PD	115.4	117.1	117.1	117.1	117.1
10 Electric En Consumption/Person to PD	6,921	9,288	9,228	9,228	9,228
11 Thermal En Consumption/Person to PD	184.5	219.4	219.4	219.4	219.4
12 Electric En Consumption/Person to PD	12,645	12,645	12,645	12,645	12,645
13 Thermal En Consumption/Person to PD	42	45	45	45	45
14 Electric En Consumption/Person to PD	329,430.8	310,908.0	310,908.0	310,908.0	310,908.0
15 Thermal En Consumption/Person to PD	128,478.1	105,708.2	105,708.2	105,708.2	105,708.2
16 Electric En Consumption/Person to PD	200,952.8	205,199.8	205,199.8	205,199.8	205,199.8
17 Thermal En Consumption/Person to PD	437	437	437	437	437
18 En Cons by Category					
Training	891	702	655	460	598
Maintenance & Production	10	10	10	10	10
Research, Development & Training	1,165	75	26	16	17
Storage	410	689	682	823	1,208
Other General Storage	1,284	92	267	318	255
Hospital & Medical	1,517	1,363	848	653	1,098
Administration	977	2,884	2,675	2,445	2,067
Sanitation Housing	1,732	885	859	1,168	1,088
Community Facilities	173	3,591	3,731	3,700	3,700
Family Housing	189	180	162	162	98
Charitable Buildings	180	180	180	180	180
Utility Buildings	180	180	180	180	180
Other	180	180	180	180	180

PD is Percent Deviation from Base Year **Population Served is the Total Resident & Non-Resident Population *En Cons by Category is 10 Non-Resident

- REMARKS
- 1 FY 76 ECIP - Insulation and Weatherstripping - \$138,537 - Completed January 1977
 - 2 FY 77 ECIP - Insulation - \$638,582 - Completed (estimated) June 1978
 - 3 FY 76 ECIP - Energy Monitoring/Control System - \$792,892 - Completed September 1976
 - 4 FY 78 ECIP - Insulation & Storm Windows - \$1,600,000 - Completed December 1979
 - 5 FY 79 Family Housing ECIP Improvements - \$167,000 - Completed January 1980

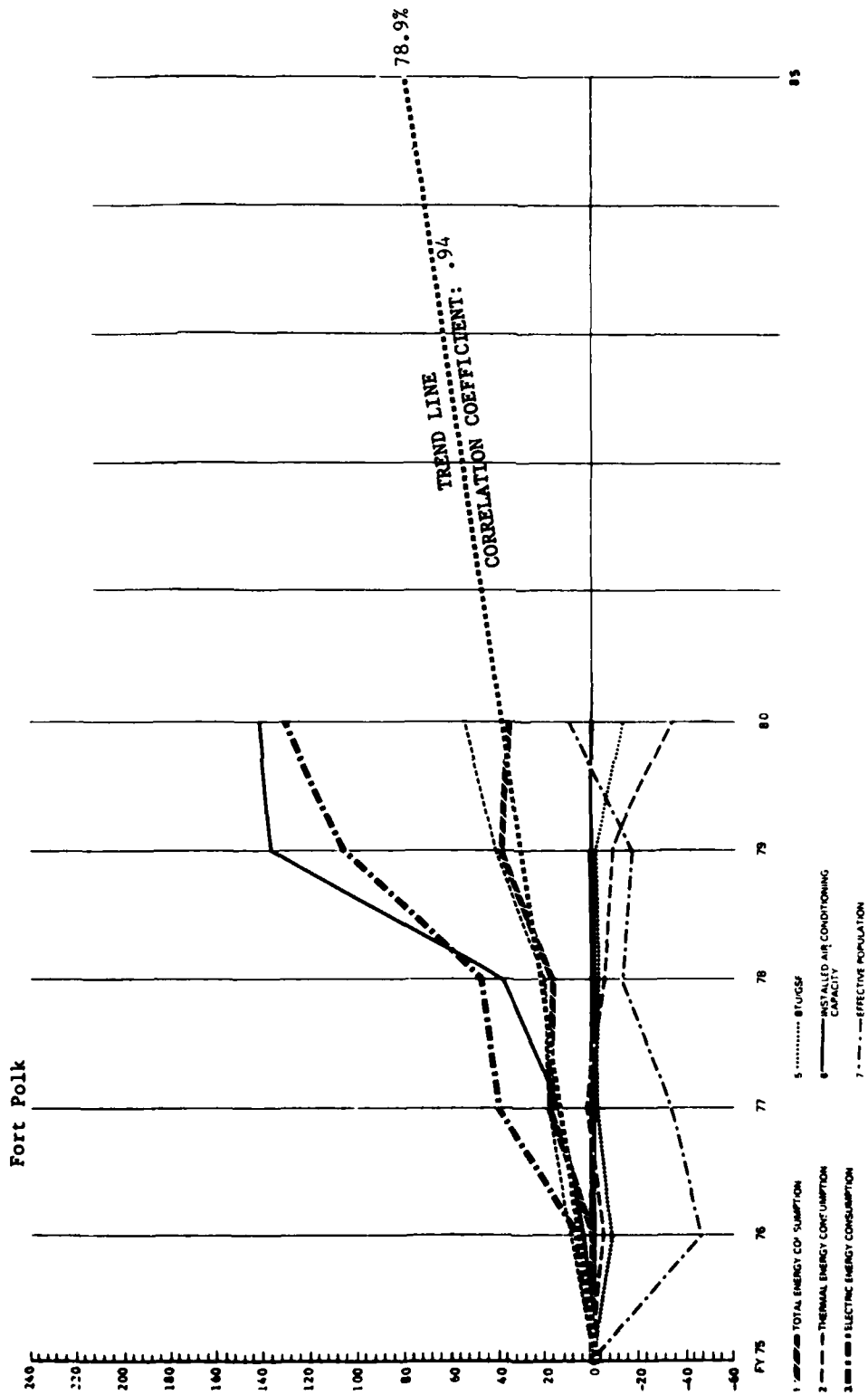


U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. ORD., CA. MACOM FORSCOM CLIMATIC REGION 4 HDD 1,812 CDD 37

UNITS	75	76	77	78	79	80
1 Energy Consumption to PD	2,266,700	2,200,838	2,820,426	1,111,111	2,574,892	2,640,609
2 Thermal En. Cons. to PD	1,432,403	1,814,065	1,726,912	1,111,111	1,462,689	1,489,529
3 Electrical En. Cons. to PD	1,134,343	924,293	1,063,582	1,111,111	1,102,203	1,151,080
4 Resident Population to PD	21,922	21,922	21,922	21,922	21,922	21,922
5 Non-Resident Population to PD	6,533	7,216	7,216	7,216	7,216	7,216
6 Population Services to PD	34,758	34,758	34,758	34,758	34,758	34,758
7 Electrical Population Services to PD	30,101	28,378	27,886	27,886	27,886	27,886
8 En. Consumption to PD	80.3	86.1	86.2	86.2	86.2	86.2
9 En. Consumption to PD	91.9	98.3	101.1	101.1	101.1	101.1
10 En. Consumption to PD	60.6	67.6	67.6	67.6	67.6	67.6
11 Resident En. Cons. to PD	1,432	1,814	1,726	1,111	1,462	1,489
12 Electrical En. Cons. to PD	950.9	1,216.1	1,063.5	1,111.1	1,102.2	1,151.0
13 Real Property Inventory 1975 to PD	17,177	20,971	16,175	16,175	16,175	16,175
14 Real Property Inventory 1976 to PD	161,075	133,081	174,376	174,376	174,376	174,376
15 Energy Consumption to PD	95,024	84,503	109,856	109,856	109,856	109,856
16 Thermal En. Consumption to PD	64,961	64,578	64,578	64,578	64,578	64,578
17 Electrical En. Consumption to PD	1,206	1,262	1,222	1,222	1,222	1,222
18 En. by Category	756	711	822	822	822	822
Training	1,074	1,100	993	993	993	993
Maintenance & Production	617	527	565	565	565	565
Research, Development & Testing	887	886	886	886	886	886
Storage	5,218	4,990	4,936	4,936	4,936	4,936
Other General Storage	1,658	1,471	1,422	1,422	1,422	1,422
Hospital & Medical	5,610	5,383	4,888	4,888	4,888	4,888
Sanitary Housing	268	251	233	233	233	233
Community Facilities	68	74	65	65	65	65
Family Housing	112	112	112	112	112	112
Quartermaster Buildings	56	56	56	56	56	56
Utility Buildings	61	61	61	61	61	61
Other	61	61	61	61	61	61

Includes Ft. MacArthur CA data from FY75 and FY76 when they were reported separately. Ft. Ord was transferred from TRADOC to FORSCOM as of FY76.

- REMARKS
- 1 FY 77 Family Housing EICP Improvements - \$1,046,907 - Completed (Est) Oct. 1978
 - 2 FY 79 EICP - Weatherstripping - \$86,000 - Completed November 1979
 - 3 FY 77 EICP - Energy Control System - \$2,621,000 - Completed July 1980
 - 4 FY 79 EICP - (Pres. Maint.) Energy Control System - \$400,000 - Completed Sept. 1980



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. POLK, LA. MACOM FORSCOM CLIMATIC REGION 6 HDO 1,889 CDD 2,466

UNITS/	75	76	77	78	79	80
1 Energy Consumption to PD	1,367,892	1,368,102	1,604,638	1,590,017	1,888,177	1,841,216
2 Thermal En. Cons. to PD	793,378	752,457	802,319	747,706	717,508	512,850
3 Electrical En. Cons. to PD	574,514	615,645	802,319	842,706	1,170,669	1,328,366
4 Resident Population to PD	18,009	9,403	10,072	12,649	14,239	14,968
5 Non-Resident Population to PD	7,407	5,092	10,072	14,075	7,681	21,030
6 Population Served** to PD	25,416	14,495	20,843	26,724	21,920	37,998
7 Effective Population*** to PD	20,418	11,100	13,663	17,361	16,799	21,415
8 En. Consumption/Pop Served to PD	51.8	94.6	76.9	91.7	117.4	117.4
9 En. Consumption/Pop Served to PD	66.8	173.2	177.4	91.7	87.2	46.3
10 Electric En. Consumption/Resident Population	31.9	65.5	79.7	66.6	87.2	46.3
11 Installed Air-Cond. Capacity to PD	8,682	8,905	9,699	11,782	19,911	20,434
12 Heat Property Inventory (Btu) to PD	67.7	69.1	82.7	71.5	58.8	66.3
13 Heat Property Inventory (Btu) to PD	8,551	9,288	10,071	10,288	12,037	13,204
14 Heat Effective Population	42	84	74	59	72	58
15 Energy Consumption/GSF to PD	159,949	167,298	159,332	154,550	156,864	139,445
16 Thermal En. Consumption/GSF to PD	92,782	81,014	79,666	72,639	59,604	38,841
17 Electrical En. Consumption/GSF to PD	67,187	86,284	79,666	81,911	97,256	100,605
18 per by Category						
Training	323	322	1,071	517	609	687
Research & Production	978	1,085	860	914	950	1,007
Research, Development & Training						
Storage	1,221	1,169	22	22	20	37
Other General Storage						
Headquarters & Medical	375	375	662	1,158	1,083	1,046
Administration	168	168	317	322	324	322
Bachelor Housing	3,531	4,026	368	376	461	286
Community Facilities	839	967	1,180	2,831	3,383	3,921
Family Housing	442	479	827	923	937	1,023
Operational Buildings	672	507	1,117	1,612	3,569	4,051
Utility Buildings			516	539	12	582
Other			144	17	64	87
Not Available			2,385	1,039	625	52

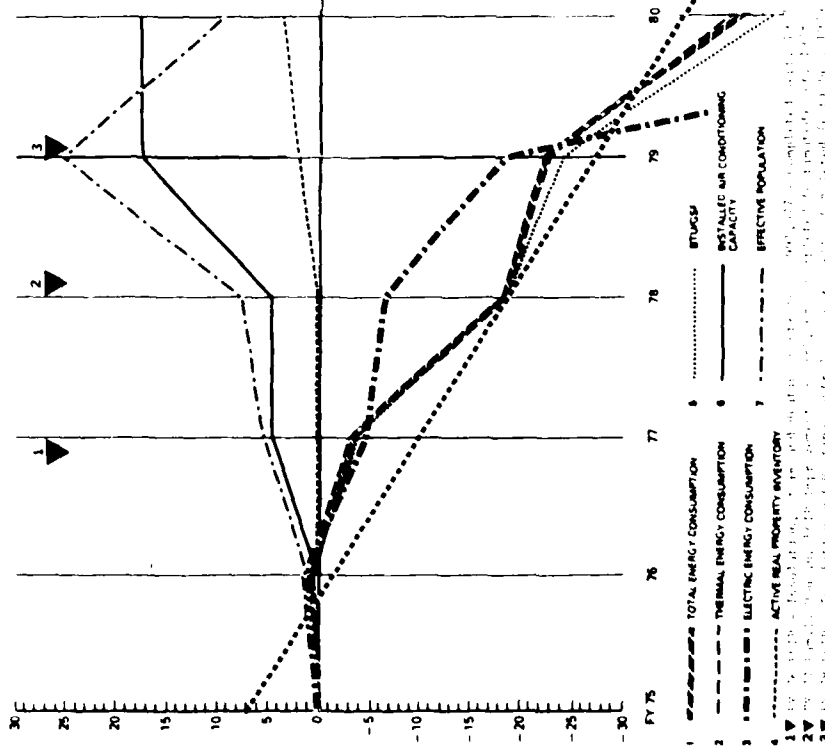
**PD is Percent Deviation from Base Year

***En Pop is Resident + 1/2 Non-Resident

Ft Polk was transferred from TRADOC to FORSCOM as of FY76.

REMARKS

Fort Richardson



TREND LINE
CORRELATION COEFFICIENT: .94

-78.6%

U.S. Army ANALYSIS OF ENERGY CONSUMPTION FT. RICHARDSON, AK MACOM FORSCOM CLIMATIC REGION 1 MOD 0.222 CDD 0

UNIT/TYPE	76	76	76	77	78	78	78	80
1 Energy Consumption & PD	1,960,160	1,959,977	1,959,977	1,892,412	1,892,412	1,892,412	1,892,412	1,892,412
2 Thermal En. Cons. & PD	1,899,550	1,898,625	1,898,625	1,841,500	1,841,500	1,841,500	1,841,500	1,841,500
3 Electrical En. Cons. & PD	60,610	61,352	61,352	50,912	50,912	50,912	50,912	50,912
4 Resident Population & PD	8,805	8,908	8,908	9,499	9,499	9,499	9,499	9,499
5 Non-Resident Population & PD	3,263	3,263	3,263	3,263	3,263	3,263	3,263	3,263
6 Population Served** & PD	12,068	12,171	12,171	12,762	12,762	12,762	12,762	12,762
7 Effective Population*** & PD	9,893	9,989	9,989	10,434	10,434	10,434	10,434	10,434
8 En. Consumption/Pop Served & PD	162.4	162.1	162.1	158.2	158.2	158.2	158.2	158.2
9 En. Consumption/Pop & PD	198.1	197.2	197.2	182.0	182.0	182.0	182.0	182.0
10 Electric En. Consumption/Person & PD	6.9	6.9	6.9	6.0	6.0	6.0	6.0	6.0
11 Insulated Air Cond Capacity & PD	210	210	210	220	220	220	220	220
12 Elec Energy/Ton of Air Cond & PD	288.6	288.2	288.2	263.1	263.1	263.1	263.1	263.1
13 Real Property Inventory BPS & PD	7,600	7,600	7,600	7,616	7,616	7,616	7,616	7,616
14 Refrigeration Population	7,600	7,600	7,600	7,616	7,616	7,616	7,616	7,616
15 Energy Consumption/GSF & PD	257,916	259,208	259,208	249,398	249,398	249,398	249,398	249,398
16 Thermal En. Consumption/GSF & PD	249,941	251,135	251,135	241,794	241,794	241,794	241,794	241,794
17 Electrical En. Consumption/GSF & PD	7,975	8,073	8,073	7,604	7,604	7,604	7,604	7,604
18 kWh per Chgery	26	26	26	26	26	26	26	26
19 Heating	700	700	700	700	700	700	700	700
20 Maintenance & Production	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
21 Research, Development & Training	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
22 Storage	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
23 Other General Storage	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
24 Hospital & Medical	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
25 Administration	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
26 Resident Housing	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
27 Community Housing	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
28 Community Fire Base	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
29 Family Housing	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
30 Operational Site Bldg	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
31 Utility Buildings	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330
32 Other	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330

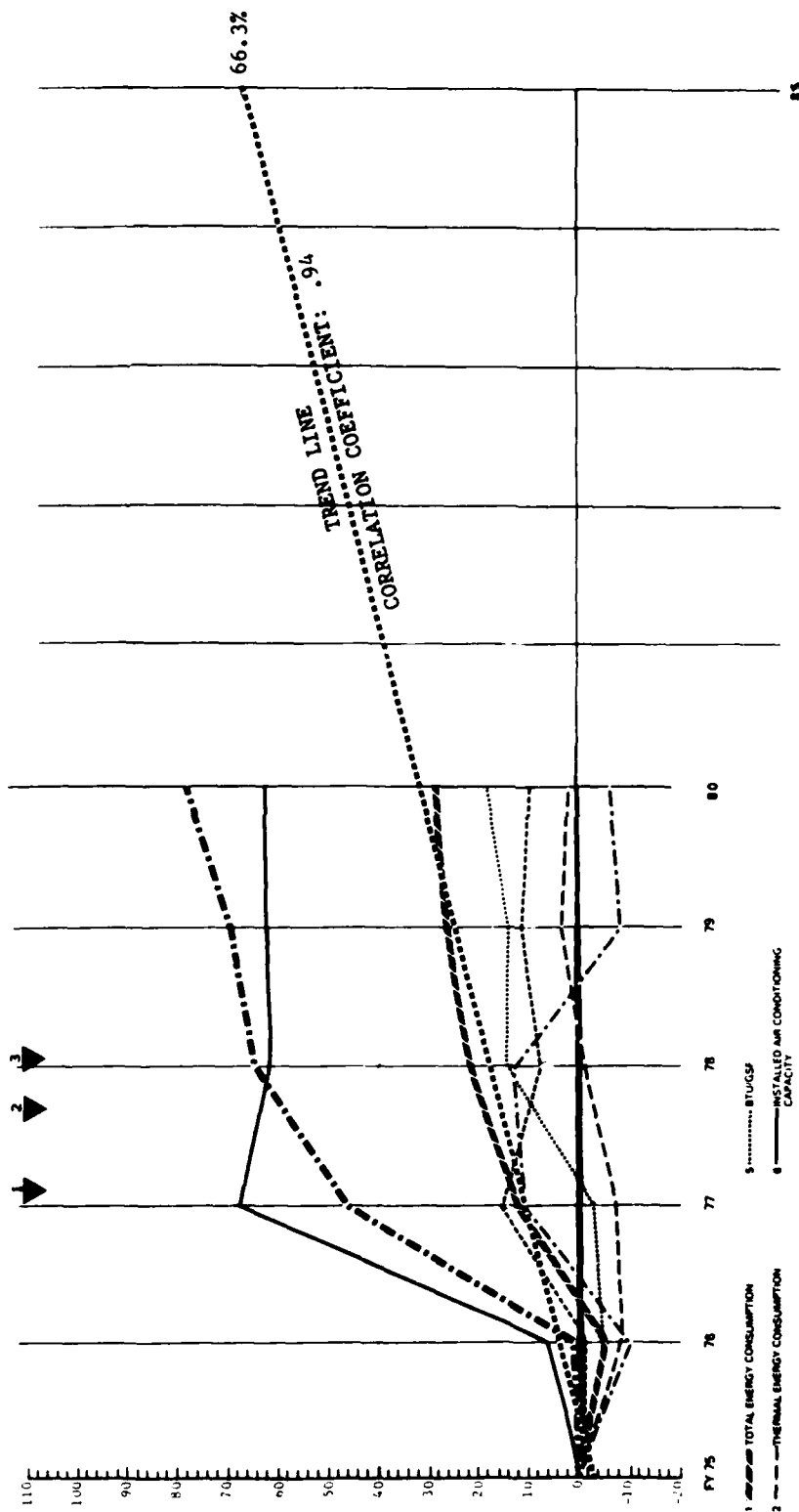
PD is Percent Occupancy from Base Year *Population Served is the total Resident & Non-Resident Population

1977 76 ECIP - Insulation, Storm and Heating Controls - \$991,077 - Completed September 1977

2077 77 Family Housing ECIP Improvements - \$385,068 - Completed (estimated) October 1978

3077 78 ECIP - Insulation and Heating Controls - \$1,971,428 - Completed (estimated) December 1979

Fort Riley



A-86

- 1 TOTAL ENERGY CONSUMPTION
- 2 THERMAL ENERGY CONSUMPTION
- 3 ELECTRIC ENERGY CONSUMPTION
- 4 ACTIVE REAL PROPERTY INVENTORY
- 5 BTU/yr
- 6 INSTALLED AIR CONDITIONING CAPACITY
- 7 EFFECTIVE POPULATION
- 8 FY76 ECIP - Insulation, Storm Windows, etc. After 1967 - Comp Now 1977
- 9 FY77 ECIP - Insulation, Storm Windows, etc. After 1977 - Comp 1st Jan 1978
- 10 FY77 Family Housing, ECIP Improvements - 1977 - Completed 1st Jan 1978

U S Army

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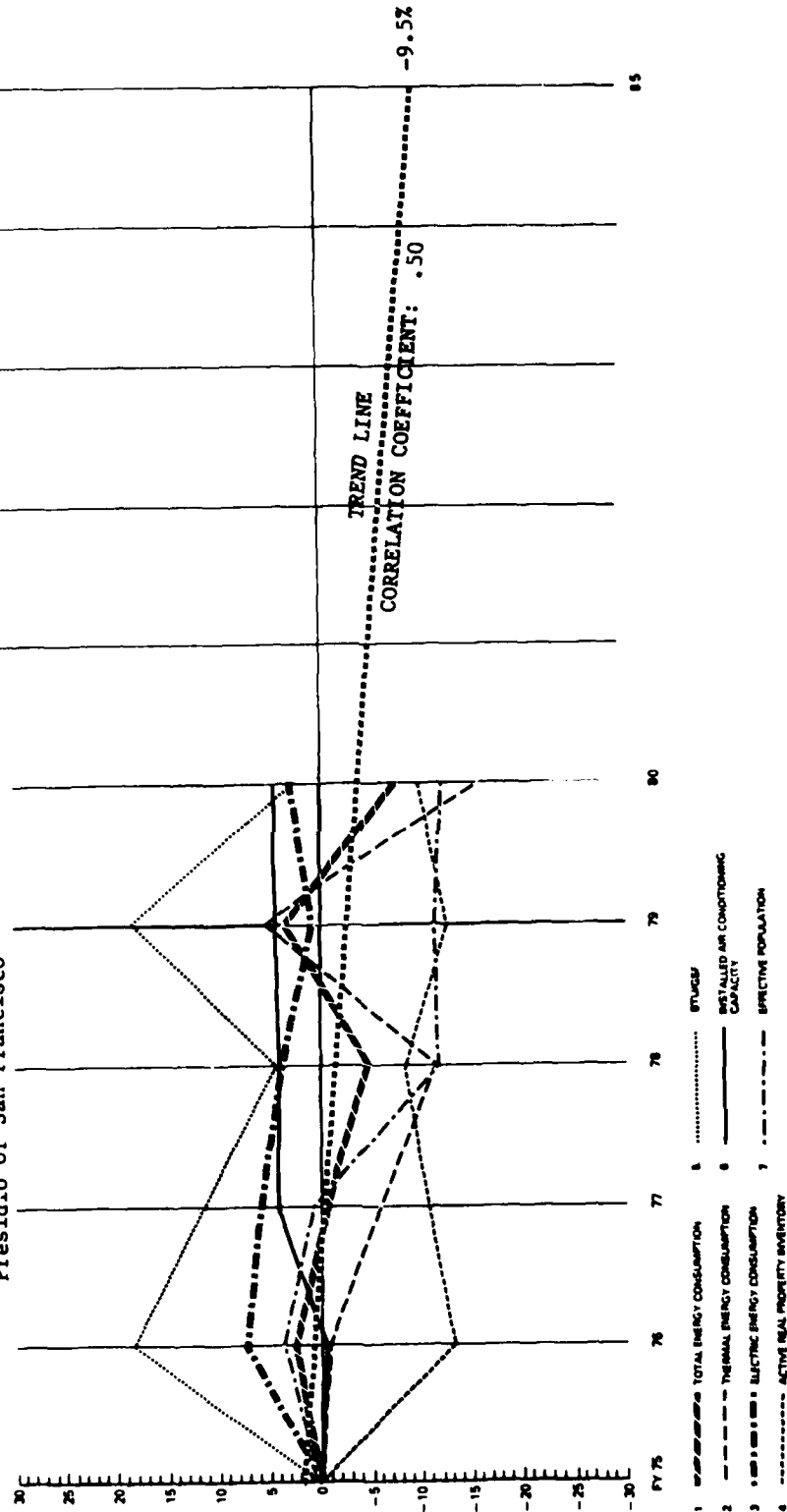
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Norms and Mechanisms

THE UNIVERSITY OF CHICAGO

Storms and Mechanisms

Presidio of San Francisco



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION PRESIDIO OF SAN FRANCISCO, CALIFORNIA FORSCOM CUMMINGS REGION 4 MOD 3,000 CDO 39

UNIT/TYPE	76	77	78	79	80	81
1 Energy Consumption & PD	1,486,418	1,528,207	1,528,207	1,528,207	1,528,207	1,528,207
2 Thermal En Cons & PD	817,510	809,930	809,930	809,930	809,930	809,930
3 Electrical En Cons & PD	668,888	718,277	718,277	718,277	718,277	718,277
4 Standby Power & PD	7,155	6,924	6,924	6,924	6,924	6,924
5 Non Resident Population & PD	6,917	7,784	7,784	7,784	7,784	7,784
6 Population Served*** & PD	14,072	15,621	15,621	15,621	15,621	15,621
7 Effective Population*** & PD	9,461	10,511	10,511	10,511	10,511	10,511
8 En Consumption/Pop Served & PD	105.6	105.6	105.6	105.6	105.6	105.6
9 En Consumption/Pop Served & PD	157.1	157.1	157.1	157.1	157.1	157.1
10 Electric En Consumption/Pop Served & PD	93.5	93.5	93.5	93.5	93.5	93.5
11 Incapable Air Cond Capacity & PD	3,007	2,989	2,989	2,989	2,989	2,989
12 Elec Emerg/Ten of Air Cond & PD	222.4	222.4	222.4	222.4	222.4	222.4
13 Peak Priority Inventory kWh & PD	8,660	7,515	7,515	7,515	7,515	7,515
14 Peak Priority Inventory kWh & PD	22	22	22	22	22	22
15 Energy Consumption/Pop Served & PD	171,642	203,334	203,334	203,334	203,334	203,334
16 Thermal En Consumption/Pop Served & PD	94,403	107,773	107,773	107,773	107,773	107,773
17 Electrical En Consumption/Pop Served & PD	77,239	95,561	95,561	95,561	95,561	95,561
18 Pop per Category	4,511	4,511	4,511	4,511	4,511	4,511
Training	4,511	4,511	4,511	4,511	4,511	4,511
Administration & Production	229	229	229	229	229	229
Research, Development & Training	156	156	156	156	156	156
Storage	229	229	229	229	229	229
Other Computer Storage	556	556	556	556	556	556
Industrial & Medical	850	850	850	850	850	850
Administration	1,284	1,284	1,284	1,284	1,284	1,284
Bachelor Housing	1,058	1,058	1,058	1,058	1,058	1,058
Community Facilities	2,603	2,603	2,603	2,603	2,603	2,603
Family Housing	279	279	279	279	279	279
Operational Storage	50	50	50	50	50	50
Utility Buildings	50	50	50	50	50	50
Other	50	50	50	50	50	50

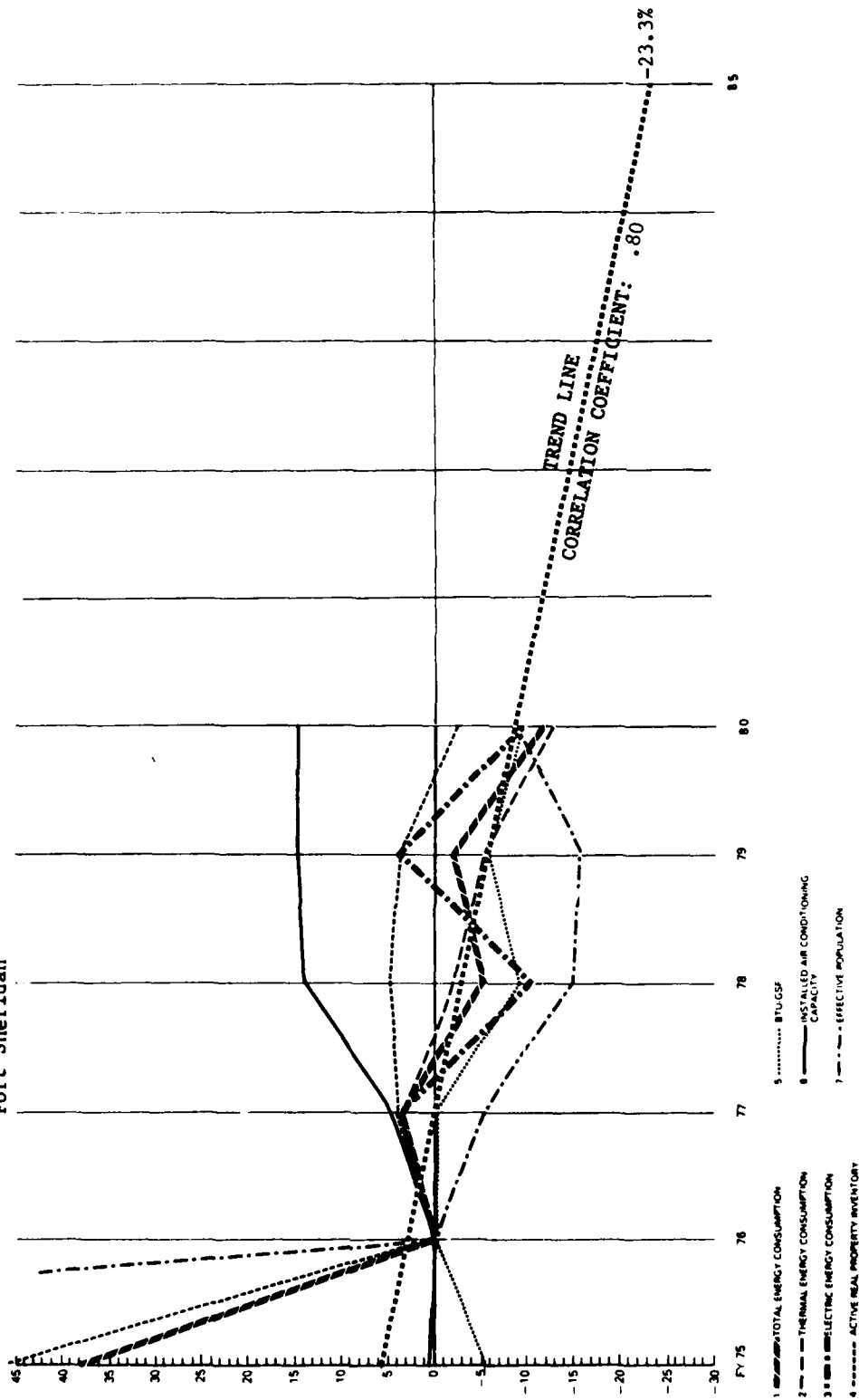
PD = Percent Decrease from Base Year

***Pop Served is the total Resident & Non-Resident Population

***En Cons is Resident & Non-Resident

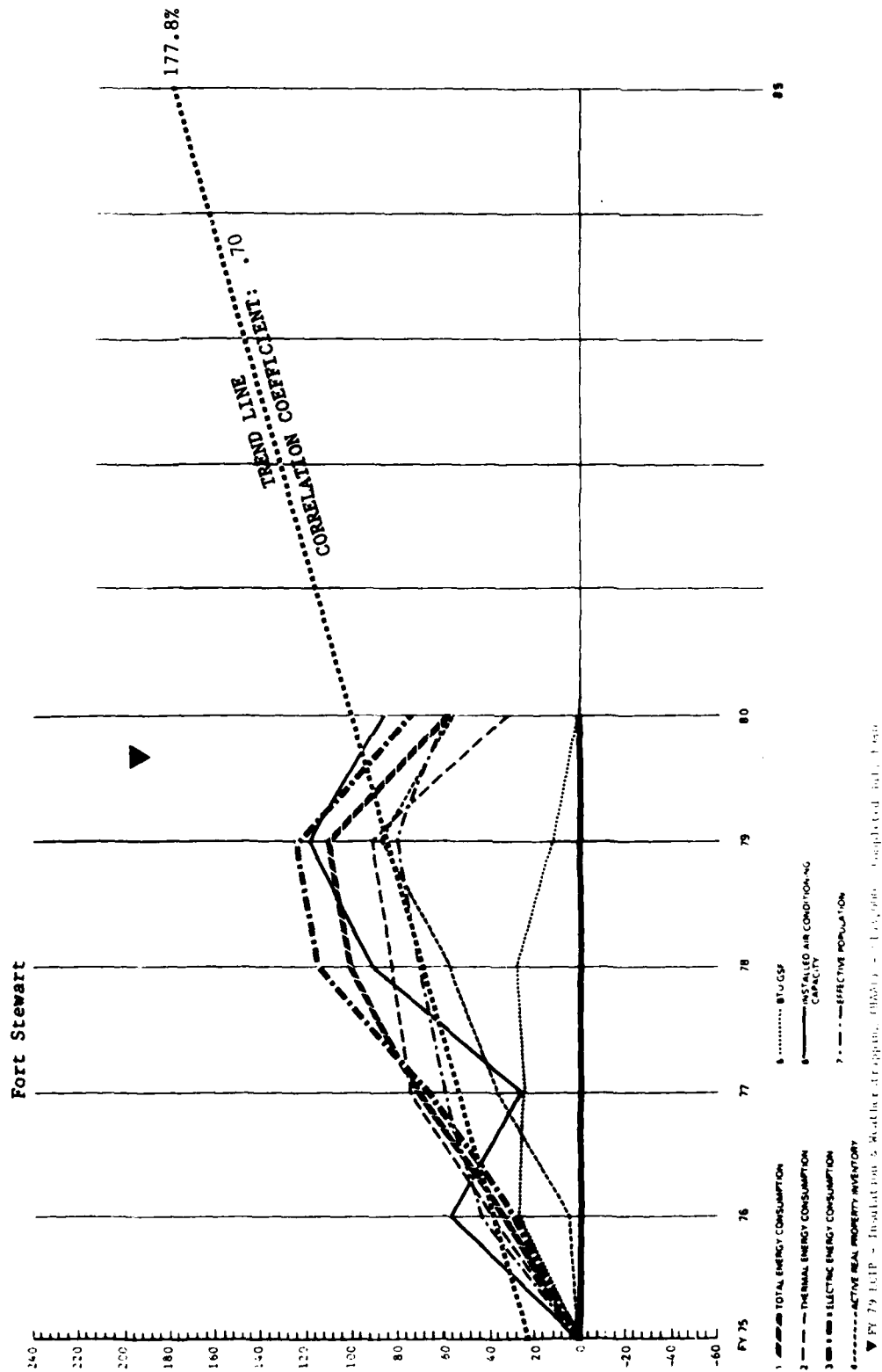
REMARKS

Fort Sheridan



UNIT/STV	75	76	77	78	79	80
1 Energy Consumption & PD	1,255,842	907,267	938,119	862,719	888,423	801,346
2 Thermal En. Cons. & PD	828,856	598,797	619,139	586,649	568,591	521,879
3 Electrical En. Cons. & PD	426,986	308,470	318,980	276,070	319,832	279,467
4 Residential Population & PD	8,511	1,015	2,786	2,193	2,382	2,608
5 Non-Residential Population & PD	7,790	1,282	3,853	3,797	3,730	3,910
6 Population Services & PD	16,101	6,817	6,639	6,190	6,112	6,518
7 Effective Population & PD	11,108	4,296	6,070	6,659	6,625	6,918
8 En. Consumption/Pop Served & PD	77.0	133.1	141.3	139.4	145.4	122.6
9 En. Consumption/Pop Served & PD	113.0	211.1	230.5	235.8	245.1	206.5
10 Electric En. Consumption/Population	50.7	114.5	114.5	115.4	116.3	107.2
11 Installed Air Cond Capacity & PD	2,225	2,217	2,313	2,522	2,542	2,542
12 Elec. Energy/Ton of Air Cond & PD	191.9	139.1	137.9	109.5	143.8	107.2
13 Real Property Inventory (RPI) & PD	6,580	4,503	4,663	4,731	4,807	4,401
14 RPI/Effective Population	59	1.05	1.15	1.29	1.29	1.12
15 Energy Consumption/GSF & PD	190,857	201,480	201,183	182,740	190,363	182,083
16 Thermal En. Consumption/GSF & PD	123,986	132,977	132,781	124,264	121,832	118,582
17 Electrical En. Consumption/GSF & PD	66,871	68,503	68,402	58,477	68,530	63,501
18 RPI by Category	1,288	1,206	1,315	1,362	1,316	1,168
Minimums & Production	595	553	600	604	604	443
Research, Development & Training	390	327	4	4	4	4
Other Contract Storage	90	48	47	47	37	311
Hospital & Medical	618	604	591	584	610	47
Administration	363	347	322	339	338	610
Residential Housing	520	378	380	375	375	366
Community Facilities	2,612	987	987	987	987	987
Family Housing	36	36	35	35	35	36
Chromatid Box Shop	28	16	26	24	10	26
Utility Buildings	78	16	15	10	10	10
Other	BASE	BASE	BASE	BASE	BASE	BASE

PT 75 data includes Selfridge Area Support Center, MI, which was a sub-activity of Ft. Sheridan at that time. As of FY 76, Selfridge was transferred to DARCOM, FY76 is the base year for Percent Deviations.

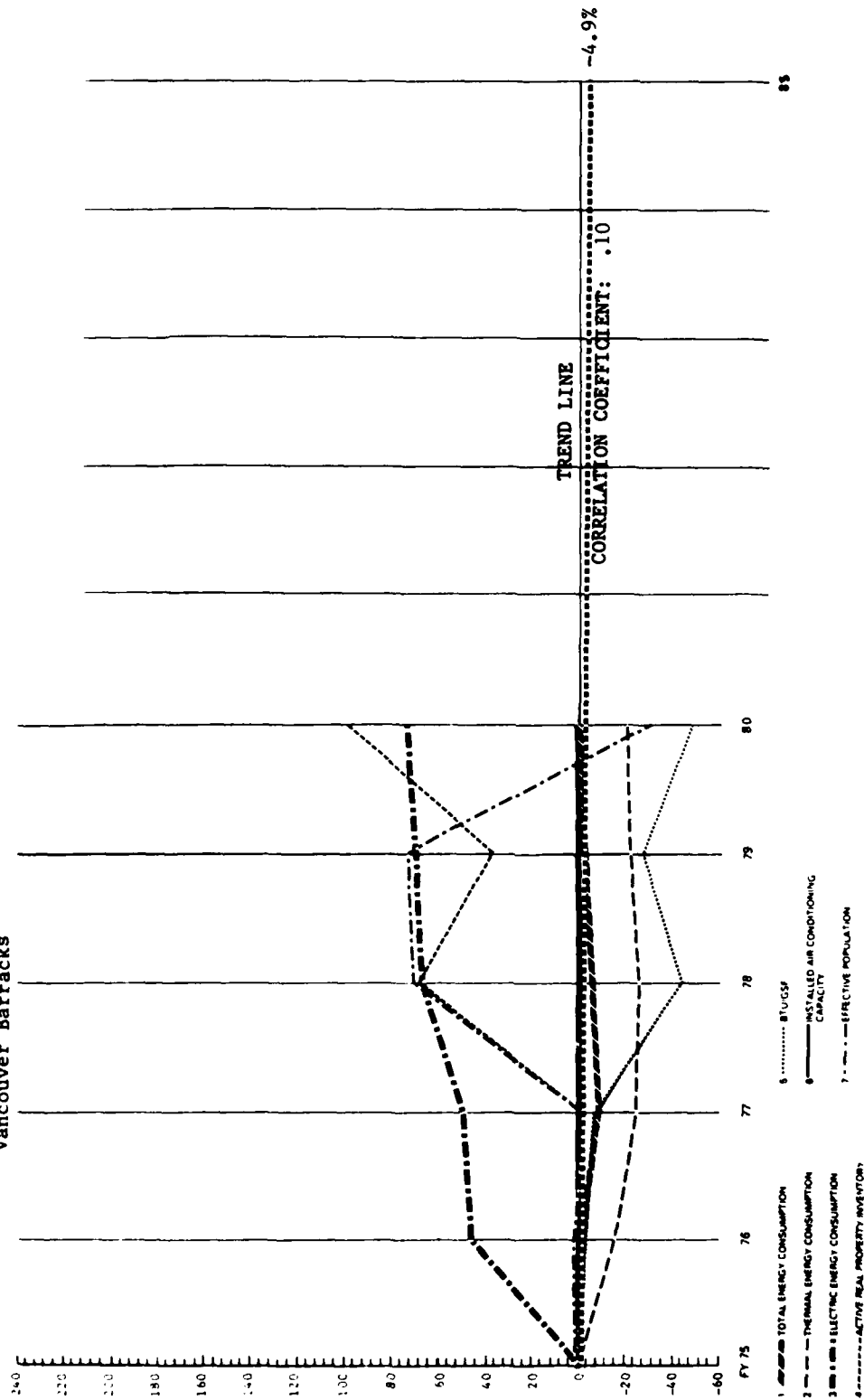


UNIT/STF	75	76	77	78	79	80
1 Energy Consumption in PD	1,084,800	1,450,952	1,848,114	2,198,047	2,778,227	3,696,218
2 Thermal En Cons in PD	556,560	618,119	776,669	811,558	865,917	1,096,518
3 Electrical En Cons in PD	528,240	832,833	1,071,445	1,386,489	1,912,310	2,600,000
4 Resident Population in PD	12,757	12,757	12,757	12,757	12,757	12,757
5 Non-Resident Population in PD	6,637	6,637	6,637	6,637	6,637	6,637
6 Population Served** in PD	19,394	19,394	19,394	19,394	19,394	19,394
7 Effective Population*** in PD	15,803	15,803	15,803	15,803	15,803	15,803
8 En Consumption/Pop Served in PD	56.6	50.3	44.1	38.4	32.0	25.0
9 En Consumption/Pop in PD	72.9	67.6	62.3	56.4	50.3	44.1
10 Heating En Consumption in PD	49.4	45.7	42.1	38.4	34.7	31.0
11 Heating En Consumption/Pop in PD	8.05%	7.83%	7.61%	7.39%	7.17%	6.95%
12 Heating En Consumption/Pop in PD	78.3	66.0	54.1	42.1	30.1	18.1
13 Heating En Consumption/Pop in PD	6,357	5,571	4,785	4,000	3,215	2,430
14 Heating En Consumption/Pop in PD	170,962	212,273	253,584	294,895	336,206	377,517
15 Heating En Consumption/Pop in PD	71,816	95,600	119,384	143,168	166,952	190,736
16 Heating En Consumption/Pop in PD	99,158	132,471	165,784	199,097	232,410	265,723
17 Electrical En Consumption/Pop in PD	57.1	55.9	54.6	53.2	51.8	50.4
18 En by Category	57.1	55.9	54.6	53.2	51.8	50.4
Training	856	855	854	853	852	851
Maintenance & Production	791	774	757	740	723	706
Research Development & Testing	238	238	238	238	238	238
Storage	227	227	227	227	227	227
Other Covered Storage	314	314	314	314	314	314
Hospital & Medical	951	951	951	951	951	951
Administration	631	631	631	631	631	631
Residential Housing	1,711	1,711	1,711	1,711	1,711	1,711
Community Facilities	197	197	197	197	197	197
Family Housing	74	74	74	74	74	74
Quartermaster Buildings	74	74	74	74	74	74
Utility Buildings	74	74	74	74	74	74
Other	74	74	74	74	74	74

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *En by Category is the total Resident & Non-Resident Population

▼ FY 79 ECIP - Insulation & Weatherstripping (HAAP) - \$153,000 - Completed July 1980

Vancouver Barracks



ANALYSIS

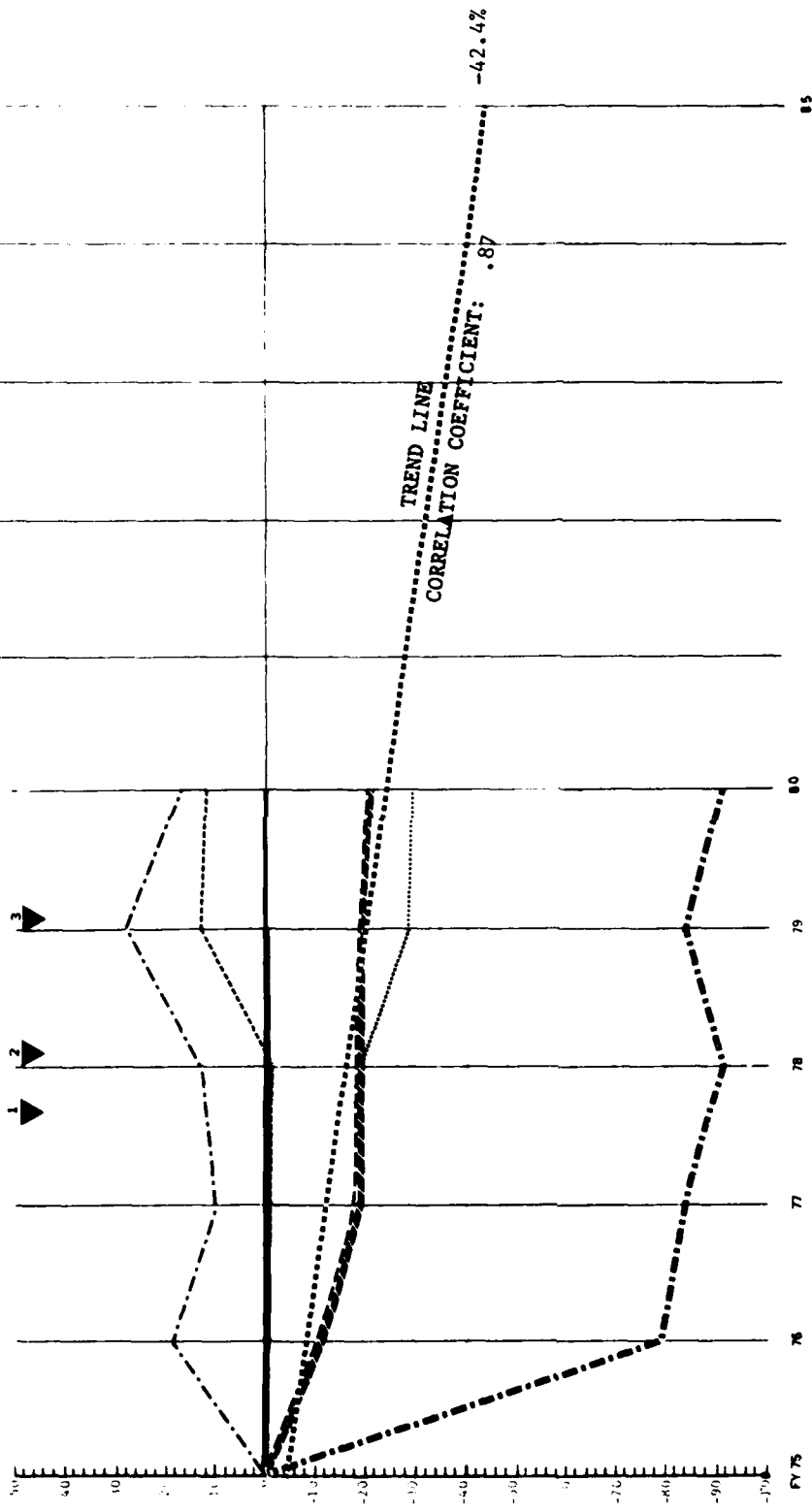
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* Population Served is the total Population of Men Served by the Institution

2024

5. CONCLUSIONS

Fort Wainwright



UNIT/TYPE	76	77	78	79	80
1 Energy Consumption to PD	2,248,103	2,017,304	1,812,720	1,812,411	1,772,679
2 Thermal En Cons to PD	2,242,625	2,014,025	1,811,200	1,812,925	1,772,679
3 Electrical En Cons to PD	15,478	3,283	1,520	2,506	1,427
4 Resident Population to PD	5,833	6,986	6,454	6,842	6,237
5 Non-Resident Population to PD	719	731	729	727	724
6 Population Served** to PD	6,612	7,722	7,183	7,569	6,961
7 Effective Population*** to PD	6,093	7,240	6,454	6,842	6,237
8 En Consumption/Pop Served to PD	340.0	241.1	248.4	248.4	248.4
9 En Consumption/Pop to PD	348.9	278.6	273.0	275.4	250.4
10 Electric En Consumption/Person	2.6	342.5	342.2	342.2	342.2
11 Installed Air Cond Capacity to PD	293	342	342	342	342
12 Elec Energy/Ton of Air Cond to PD	52.7	9.6	4.4	20.2	11.5
13 Heat Property Inventory (Btu) to PD	5,621	5,615	5,615	6,360	6,279
14 Btu/Effective Population	92	78	82	87	89
15 Energy Consumption/GSP to PD	399.947	359.271	326.658	326.397	282.566
16 Thermal En Consumption/GSP to PD	397.202	358.686	326.126	326.126	282.319
17 Electrical En Consumption/GSP to PD	2.745	585	471	394	227
18 Btu by Category					
Training	256	754	754	788	795
Maintenance & Production	33	33	33	36	36
Research, Development & Testing	522	525	500	90	90
Storage				468	477
Other General Storage	161	161	161	160	161
Hospital & Medical	126	135	135	245	245
Administration	976	973	973	1,355	1,355
Bachelor Housing	355	356	356	412	412
Community Facilities	2,394	2,394	2,394	2,385	2,372
Family Housing	35	33	33	35	35
Overseas Bldg	252	266	266	264	236
Utility Buildings				4	4
Other				110	40

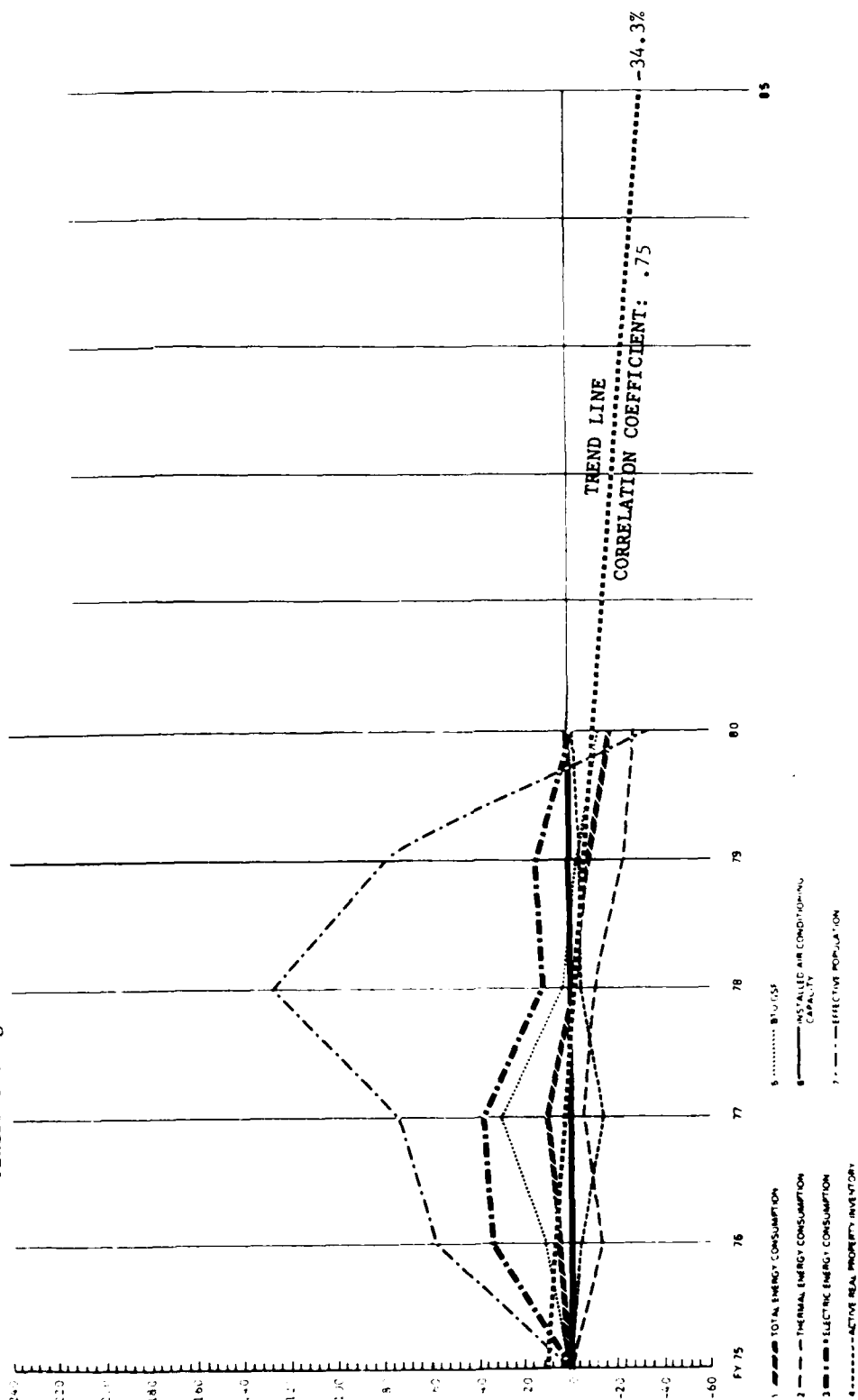
**PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population

1 FY 77 ECIP - Insulation and Heating Controls - 5990,496 - Completed (estimated) June 1978

2 FY 77 Family Housing ECIP Improvements \$1,581,991 - Completed (estimated) October 1978

3 FY 78 ECIP - Insulation and Heating Controls - \$2,475,730 - Completed (estimated) December 1979

Yakima Firing Center



[illegible]

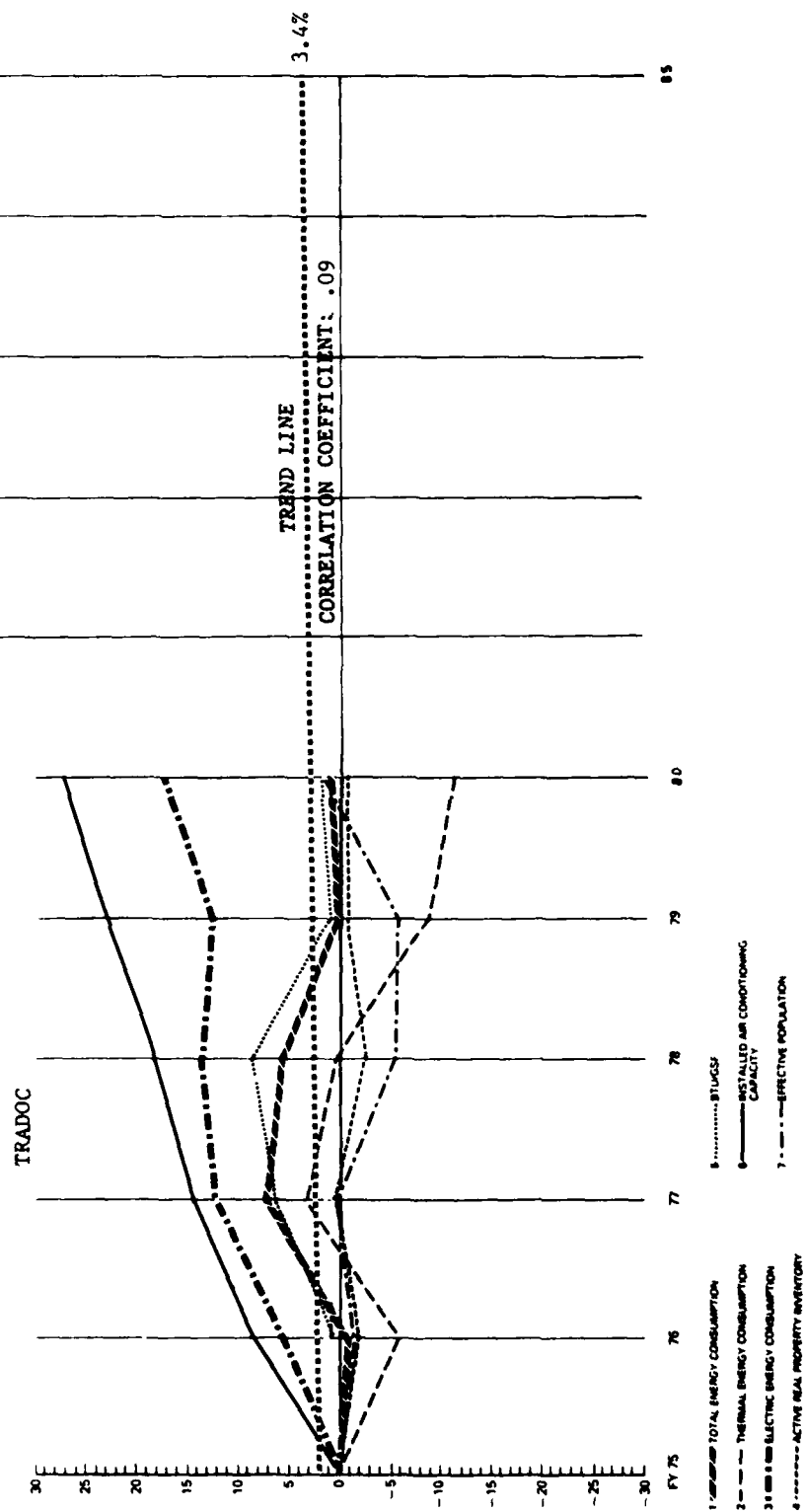
...24 Feet in Diameter + 1/2 Meter Diameter

...President. Served in the Israel Embassy & Also President, President

FD-302 (Rev. 11-27-70)

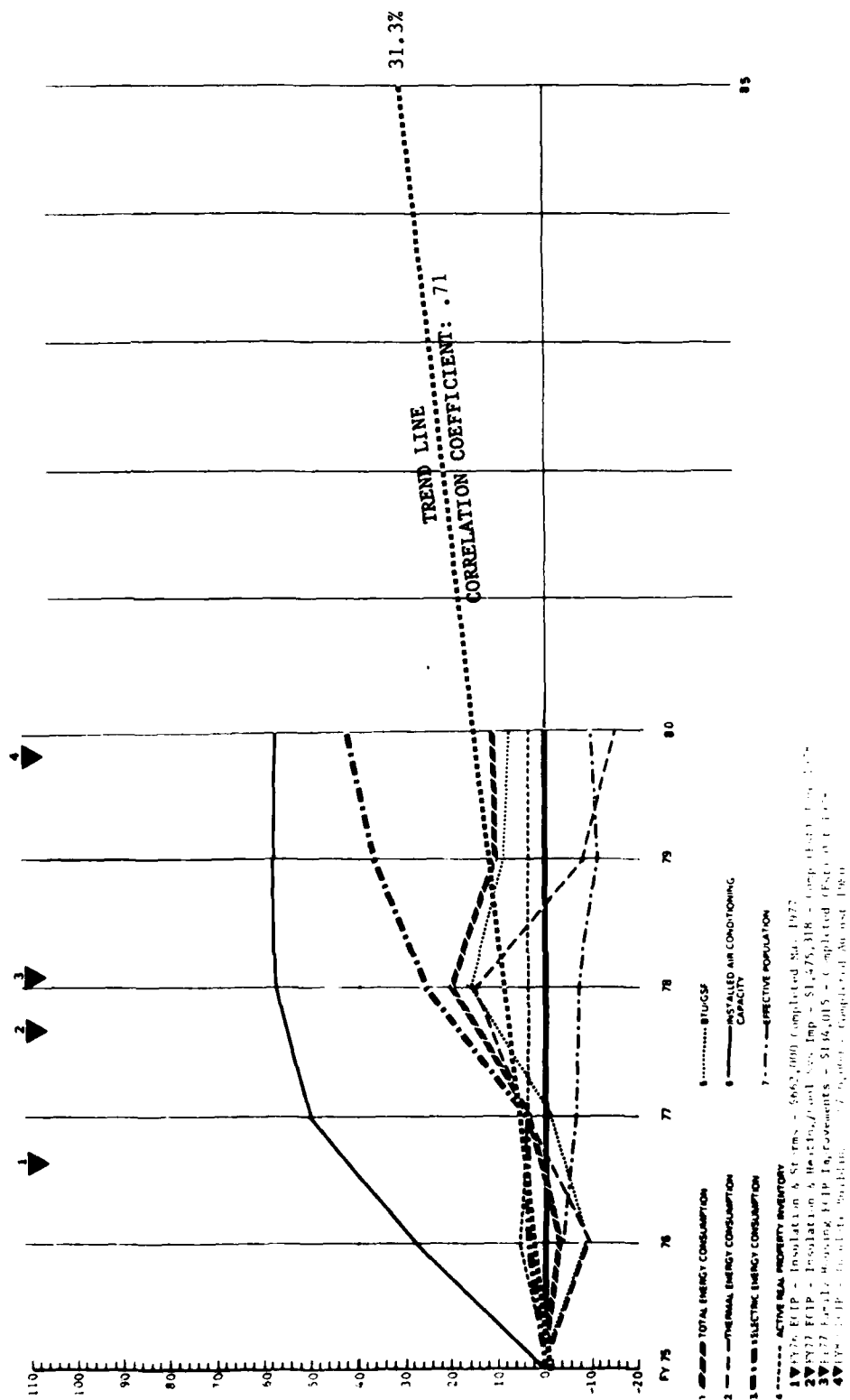
10

STAY WITH ME



Year	Population	Population Saved in the 10th Decade by Non-Resistant Population	*** Pop. in Reservoir + 10 Non-Resistant
1900	100,000,000	10,000,000	110,000,000
1910	120,000,000	12,000,000	132,000,000
1920	140,000,000	14,000,000	154,000,000
1930	160,000,000	16,000,000	176,000,000
1940	180,000,000	18,000,000	198,000,000
1950	200,000,000	20,000,000	220,000,000
1960	220,000,000	22,000,000	242,000,000
1970	240,000,000	24,000,000	264,000,000
1980	260,000,000	26,000,000	286,000,000
1990	280,000,000	28,000,000	308,000,000
2000	300,000,000	30,000,000	330,000,000
2010	320,000,000	32,000,000	352,000,000
2020	340,000,000	34,000,000	374,000,000
2030	360,000,000	36,000,000	396,000,000
2040	380,000,000	38,000,000	418,000,000
2050	400,000,000	40,000,000	440,000,000
2060	420,000,000	42,000,000	462,000,000
2070	440,000,000	44,000,000	484,000,000
2080	460,000,000	46,000,000	506,000,000
2090	480,000,000	48,000,000	528,000,000
2100	500,000,000	50,000,000	550,000,000

Fort Belvoir



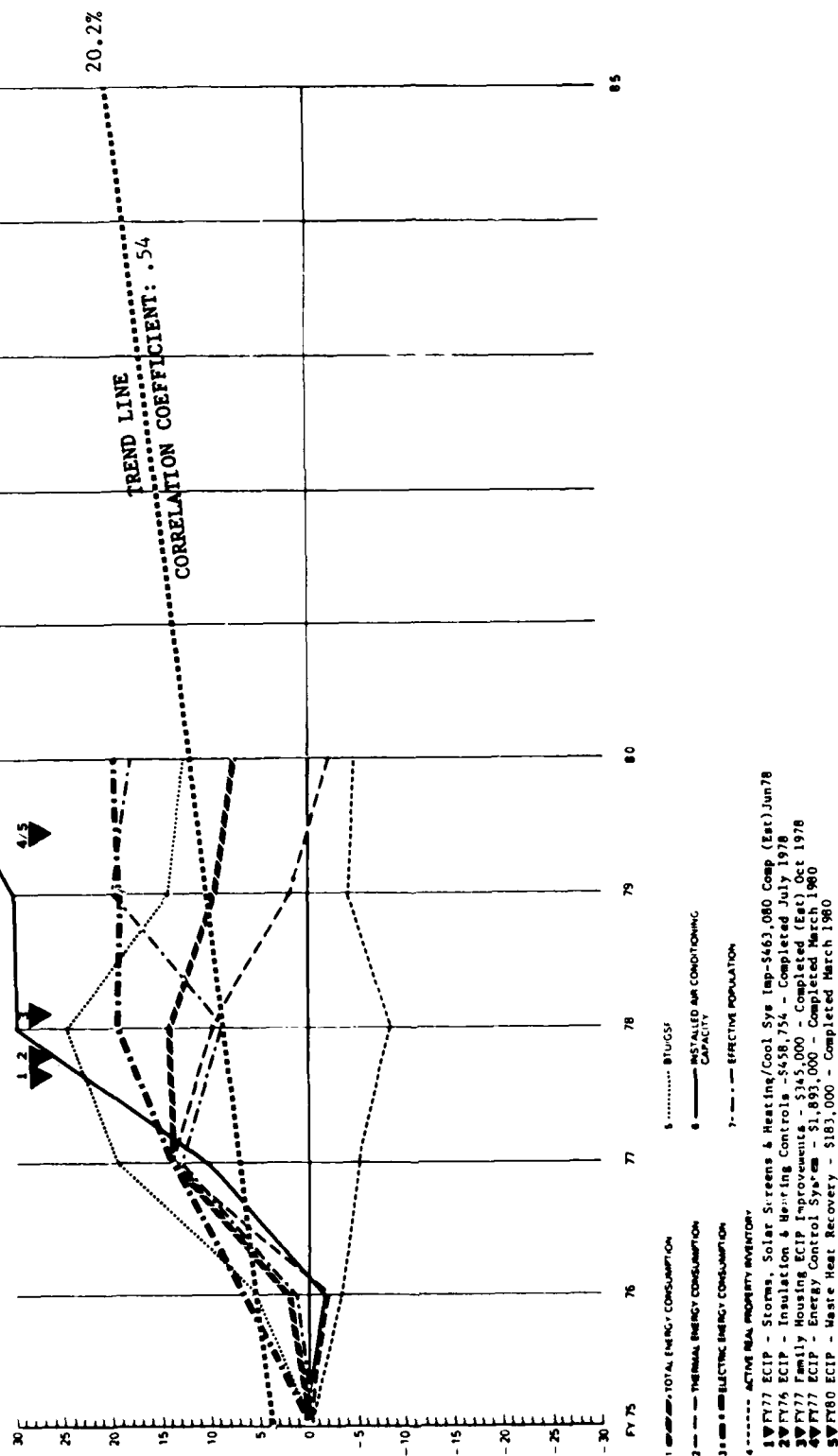
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. BELVOIR, VA MACOM TRAPC CLIMATIC REGION 1 HOD 4,819 CDD 1,130

UNITS	75	76	77	78	79	80
1 Energy Consumption & PD	2,212,240	2,159,498	2,316,384	2,680,304	2,727,815	2,474,131
2 Thermal En. Cons. & PD	1,228,007	1,172,914	1,275,011	1,430,463	1,415,026	1,155,211
3 Electrical En. Cons. & PD	1,004,233	1,006,584	1,041,373	1,249,841	1,312,789	1,318,920
4 Resident Population & PD	10,114	9,743	9,617	9,666	9,503	9,000
5 Non-Resident Population & PD	7,677	7,851	7,716	7,872	7,503	7,452
6 Population Served** & PD	17,811	17,594	17,333	17,538	17,006	16,452
7 Effective Population*** & PD	12,826	12,360	12,009	11,937	11,445	10,548
8 En. Consumption/Pop Served & PD	125.4	122.7	122.1	122.1	122.1	122.1
9 En. Consumption/Pop & PD	174.1	174.7	174.7	174.7	174.7	174.7
10 Electric En. Consumption/Pop & PD	97.2	105.4	104.4	104.4	104.4	104.4
11 Available Air Cond Capacity & PD	7,206	9,881	11,620	12,130	12,130	12,130
12 Electric En. Cons./Air Cond & PD	130.4	104.9	104.9	104.9	104.9	104.9
13 Fuel Property Inventory BHP & PD	8,419	8,891	8,742	8,713	8,641	8,673
14 BHP/Electric Population	0.66	0.72	0.73	0.73	0.73	0.73
15 Energy Consumption/GSF & PD	265,203	242,886	264,972	307,621	286,753	283,268
16 Thermal En. Consumption/GSF & PD	145,861	126,301	145,735	163,039	151,831	129,134
17 Electrical En. Consumption/GSF & PD	119,341	116,585	119,237	144,582	134,922	154,134
18 BHP by Category						
Training	984	1,110	1,122	1,122	1,138	1,129
Maintenance & Production	574	582	565	565	569	570
Research, Development & Testing	240	241	241	241	241	241
Storage	546	546	546	546	546	546
Other Computer Storage	324	368	371	371	371	371
Hospital & Medical	555	517	570	578	577	597
Administration	1,570	1,662	1,640	1,533	1,411	1,360
Bachelor Housing	54	666	617	648	643	657
Community Facilities	2,138	2,138	2,138	2,138	2,138	2,138
Family Housing	194	191	177	168	176	207
Operational Buildings	50	34	35	35	34	34
Other						

*PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population ***BHP by Category

- 1 FY 76 ECIP - Insulation and Storms - \$662,000 - Completed May 1977
 2 FY 77 ECIP - Insulation and Heating/Cooling System Improvements - \$1,475,318 - Completed (estimated) June 1978
 3 FY 77 Family Housing ECIP Improvements - \$134,015 - Completed (estimated) October 1978
 4 FY 80 ECIP - Insulate Buildings - \$720,000 - Completed August 1980

Fort Benning



UNIT/FY	75	76	77	78	79	80
1 Energy Consumption is PD	5,118,100	5,118,100	4,610,604	5,618,082	5,425,282	4,242,910
2 Thermal En Cons is PD	2,311,008	2,311,008	2,638,045	2,539,946	2,345,668	2,260,525
3 Electrical En Cons is PD	1,751,191	1,851,135	1,982,559	2,078,136	2,080,119	2,087,385
4 Resident Population is PD	21,909	21,909	21,186	26,081	27,831	28,919
5 Non Resident Population is PD	13,510	13,510	13,716	13,481	17,224	12,860
6 Population Served** is PD	37,419	37,419	40,902	39,564	45,055	41,779
7 Effective Population*** is PD	28,119	28,119	31,758	30,577	33,572	33,206
8 En Consumption/Pop Served is PD	109.4	109.9	112.7	116.7	98.2	104.1
9 En Consumption/Pop Served is PD	144.2	144.9	145.2	151.0	131.8	130.9
10 Electric En Consumption/Population	73.7	72.5	72.9	79.7	74.7	72.2
11 Heating En Cons Capacity is PD	20,856	20,497	22,985	26,896	27,520	28,716
12 Electric Energy of Air Cond is PD	83.6	90.4	86.2	77.3	75.6	72.7
13 Heat Property Inventory BPH is PD	21,219	20,439	20,172	19,455	20,385	20,240
14 BPH Effective Population	190,894	200,891	228,564	237,372	212,110	214,818
15 Energy Consumption/GSF is PD	108,809	110,430	130,281	130,555	115,088	111,686
16 Thermal En Consumption/GSF is PD	82,080	80,400	98,391	106,817	102,093	103,137
17 Electrical En Consumption/GSF is PD	1,571	1,631	1,718	1,731	1,533	1,561
18 BPH by Category	1,484	1,541	1,648	1,662	1,433	1,437
Maintenance & Production	5	5	5	5	5	5
Research, Development & Testing	1,465	1,267	BASE	1,157	1,130	1,135
Storage	561	554	572	501	505	496
Other Covered Storage	271	277	250	699	574	546
Hospital & Medical	7,619	6,410	6,088	5,290	6,011	5,942
Administration	1,648	1,562	1,522	1,551	1,537	1,522
Bedchamber Housing	5,522	5,406	6,518	6,587	6,592	6,592
Community Facilities	309	260	250	237	227	214
Family Housing	84	88	102	191	116	116
Quartermaster Buildings	BASE	BASE	51	71	115	109
Utility Buildings	BASE	BASE	51	71	115	109
Other	BASE	BASE	51	71	115	109

**Population Served is the total Resident & Non-Resident Population

***PD is Percent Deviation from Base Year

1▼FY 77 ECIP - Storms, Solar Screens and Heating/Cooling System Improvements - \$463,080 - Completed (estimated) June 1978

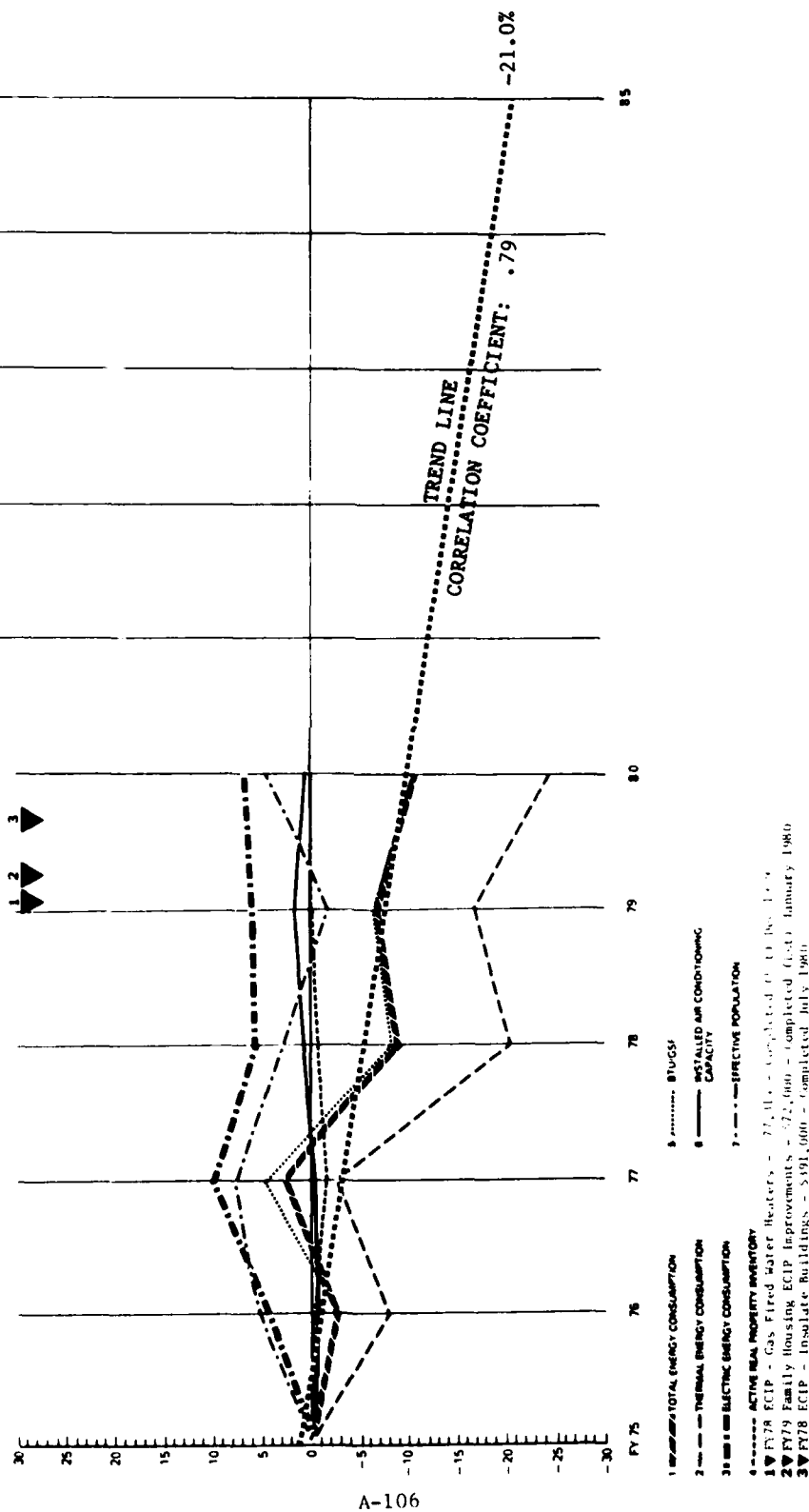
2▼FY 76 ECIP - Insulation and Heating Controls \$458,754 - Completed July 1978

3▼FY 77 Family Housing ECIP Improvements - \$345,000 - Completed (estimated) October 1978

4▼FY 77 ECIP - Energy Control System - \$1,893,000 - Completed March 1980

5▼FY 80 ECIP - Waste Heat Recovery - \$183,000 - Completed March 1980

Fort Bliss



U S Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. BLISS, TX MACOM TRAINC CLIMATIC REGION 7 HDD 2,432 CDD 2,253

1 2 3

UNIT/STY	76	77	78	79	80
UNITU	3,355,885	3,432,802	3,453,193	3,416,158	3,486,485
UNITU	1,873,696	1,822,036	1,871,085	1,858,079	1,918,871
UNITU	1,472,188	1,510,766	1,557,108	1,558,079	1,567,610
PEOPLE	21,598	22,673	23,202	23,050	23,164
PEOPLE	16,977	17,237	17,345	17,253	17,252
PEOPLE	15,674	16,271	16,857	16,865	16,865
PEOPLE	38,512	40,110	41,551	41,715	42,906
PEOPLE	28,061	28,585	29,117	29,072	29,765
UNITUCAP	91.5	95.1	97.2	98.9	101.9
UNITUCAP	125.8	120.3	113.8	118.5	127.6
UNITUCAP	68.2	71.3	73.4	75.3	77.6
TOWNS	5,670	5,689	5,762	5,787	5,736
UNITUTION	257.6	264.0	271.2	269.2	273.3
ESF	17,182	16,916	17,048	17,108	17,158
ESF/CAP	.65	.59	.62	.66	.62
BTUGSF	194,732	203,228	179,094	182,146	174,070
BTUGSF	109,049	107,710	87,756	91,073	87,695
BTUGSF	85,682	95,517	91,338	91,073	91,375
ESF	1,251	1,258	1,259	1,260	1,270
ESF	1,298	1,309	1,346	1,360	1,355
ESF	92	147	146	150	148
ESF	1,401	70	56	108	109
ESF	944	BASE	1,286	1,277	1,278
ESF	982	982	980	987	986
ESF	5,271	4,272	4,271	4,173	4,103
ESF	1,164	1,155	1,177	1,162	1,267
ESF	6,861	6,883	6,884	6,900	6,901
ESF	614	315	269	274	273
ESF	BASE	87	78	80	69
ESF	BASE	32	32	40	43

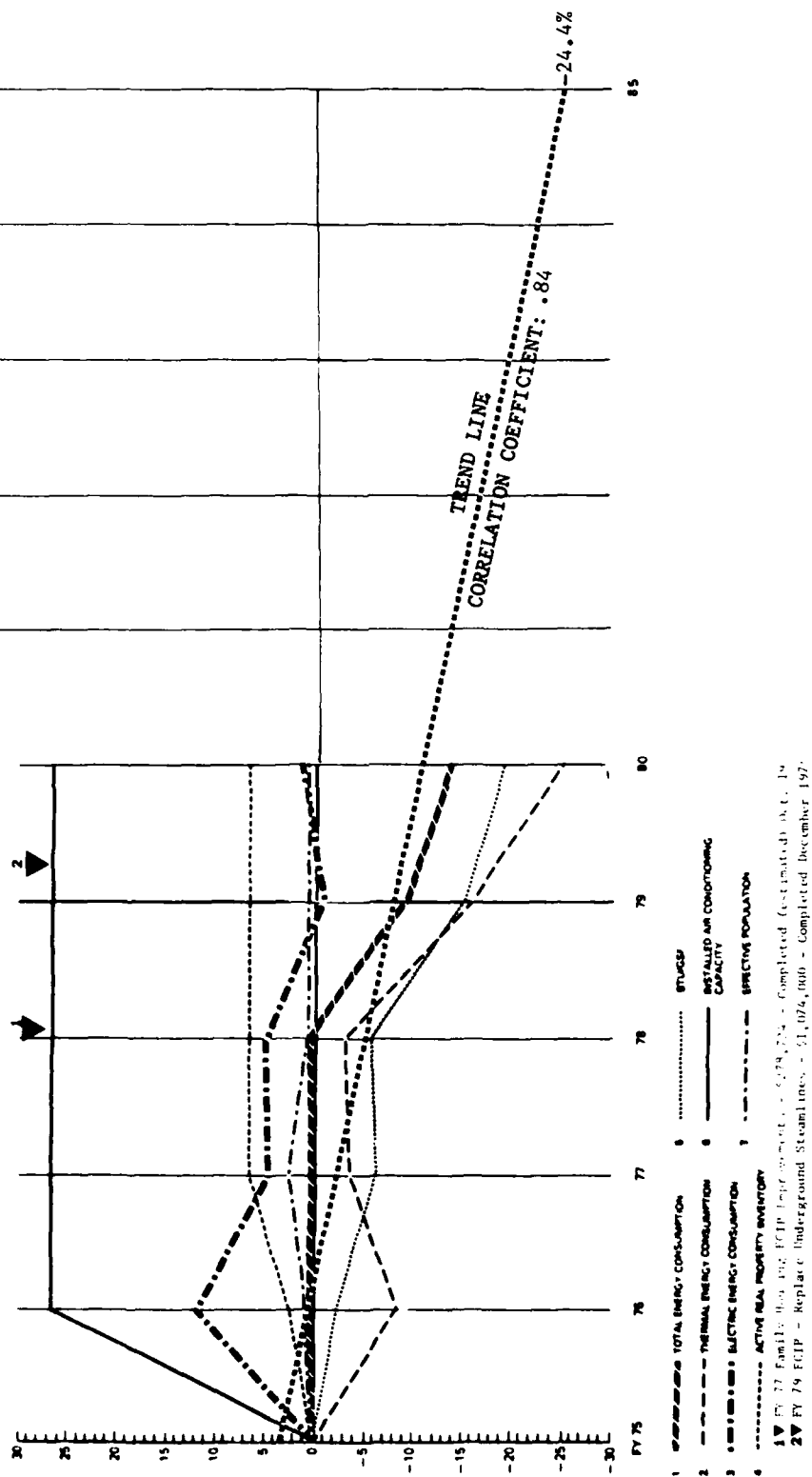
- 1 Energy Consumption to PD
- 2 Thermal En Core to PD
- 3 Electrical En Core to PD
- 4 Resident Population to PD
- 5 Non Resident Population to PD
- 6 Population Savings to PD
- 7 Effective Population to PD
- 8 En Consumption to PD
- 9 En Consumption to PD
- 10 Electric En Consumption to PD
- 11 Installed Air Cond Capacity to PD
- 12 Elec Energy/Ton of Air Cond to PD
- 13 Real Property Inventory to PD
- 14 Real Property Inventory to PD
- 15 Energy Consumption to PD
- 16 Thermal En Consumption to PD
- 17 Electrical En Consumption to PD
- 18 RPI by Category

Township
Maintenance & Production
Research, Development & Training
Storage
Other General Storage
Housing & Medical
Administration
Bachelor Housing
Community Facilities
Family Housing
Quartermaster Bn Support
Utility Buildings
Other

*PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population ***RPI is Resident + 1/3 Non-Resident

REMARKS
17 FY 78 ECIP - Gas Fired Water Heaters - \$77,314 - Completed (estimated) December 1979
20 FY 79 Family Housing ECIP Improvements - \$72,000 - Completed (estimated) January 1980
30 FY 78 ECIP - Insulate Buildings - \$391,000 - Completed July 1980

Carlisle Barracks

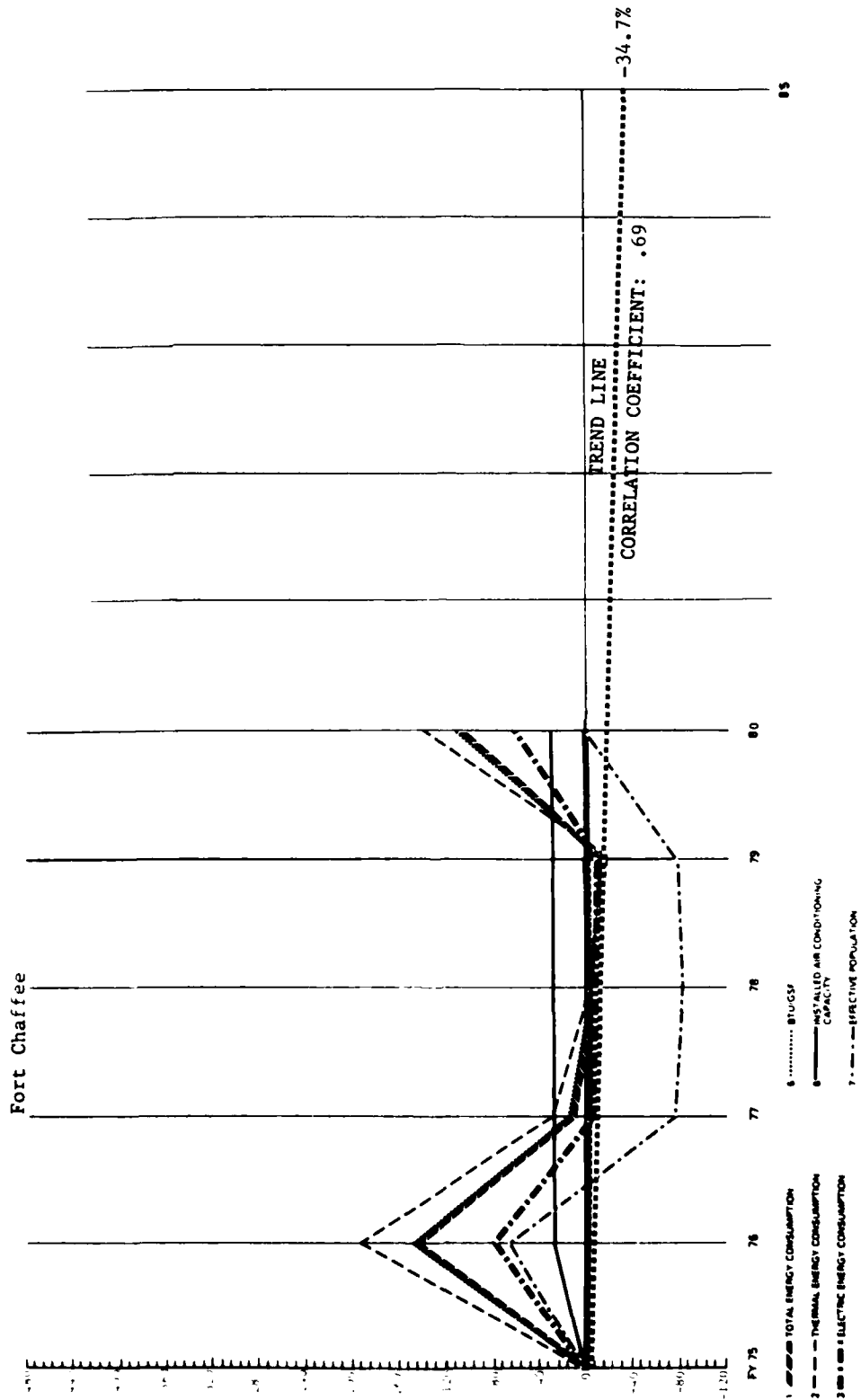


UNIT/STY	75	76	77	78	79	80
1 Energy Consumption to PD	382,836	381,529	383,056	384,531	382,251	330,377
2 Thermal En Core to PD	218,217	199,416	210,681	211,493	184,044	163,650
3 Electrical En Core to PD	164,619	184,031	172,375	173,038	163,207	166,727
4 Resident Population to PD	1,535	1,536	1,590	1,537	1,537	1,561
5 Non-Resident Population to PD	1,453	1,416	1,451	1,483	1,483	1,428
6 Population Survey to PD	2,988	2,912	3,039	3,020	3,020	2,989
7 Population Survey to PD	2,019	2,028	2,073	2,031	2,031	2,037
8 En Consumption to PD	128.1	129.0	127.3	127.3	115.0	110.5
9 En Consumption to PD	183.6	183.1	184.8	189.3	171.0	162.2
10 Electric En Consumption to PD	107.2	118.3	108.4	112.6	106.2	106.8
11 Installed Air Cond Capacity to PD	1,342	1,707	1,707	1,707	1,707	1,710
12 Electric Energy to Air Cond to PD	122.2	107.8	101	101.4	95.6	91.5
13 Heat Property Inventory to PD	1,400	1,436	1,493	1,493	1,493	1,493
14 Heat Property Inventory to PD	6.9	7.0	7.2	7.4	7.4	7.3
15 Energy Consumption to PD	273,454	267,081	256,568	257,556	232,386	221,284
16 Thermal En Consumption to PD	135,869	138,883	141,112	141,656	121,271	109,612
17 Electrical En Consumption to PD	117,585	128,198	115,455	115,899	109,314	111,672
18 Energy to Category	194	194	253	252	252	252
19 Research, Development & Testing	40	40	24	24	24	24
20 Other General Storage	71	71	53	53	53	53
21 Hospital & Medical	41	41	44	44	44	44
22 Administration	65	65	100	100	100	100
23 Bachelor Housing	110	110	107	108	108	108
24 Community Facilities	211	211	211	211	211	211
25 Family Housing	645	645	676	676	676	676
26 Operational Buildings	20	20	12	12	12	12
27 Utility Buildings	3	3	12	12	12	12
28 Other	BASE	BASE	BASE	BASE	BASE	BASE

PD is Percent Deviation from Base Year **Population Survey to the total Resident & Non-Resident Population ***Est Pop is Resident + 1/3 Non-Resident

REMARKS 10 FY 77 Family Housing ECIP Improvements - \$278,724 - Completed (estimated) October 1978

20 FY 79 Replace Underground Steamlines - \$1,074,000 - Completed December 1979

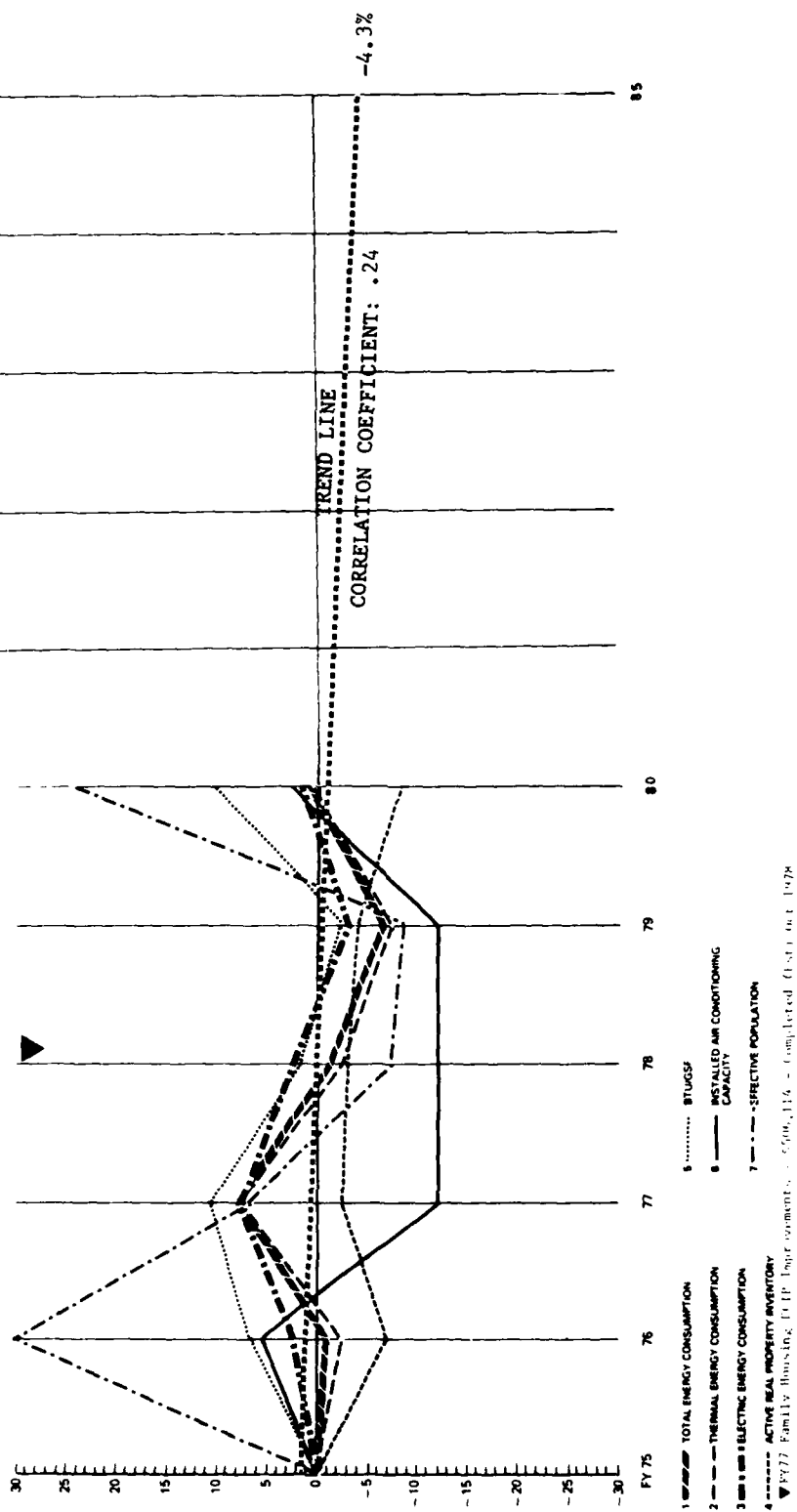


NOTE: Trend Line has been adjusted to delete FY76 & FY80 energy consumption which was a reflection of support to Southeast Asia refugees and Cuban refugees.

UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption in PD	121,292	321,419	196,724	163,154	135,924	351,312
2 Thermal En. Cons in PD	13,710	290,791	127,609	96,479	80,066	236,600
3 Electric En. Cons in PD	10,582	110,626	66,809	66,925	65,208	115,712
4 Resident Population in PD	5,115	1,100	724	350	348	6,817
5 Non-Resident Population in PD	608	1,100	724	350	348	1,481
6 Population Served** in PD	5,723	2,200	1,448	1,258	1,316	6,018
7 Effective Population*** in PD	5,212	1,654	1,122	925	1,071	5,231
8 En. Consumption Served in PD	10,46	1,454	1,122	1,158	1,116	5,231
9 En. Consumption Served in PD	12,9	1,454	1,122	1,158	1,116	5,231
10 Electric En. Consumption Served in PD	12,9	1,454	1,122	1,158	1,116	5,231
11 Installed Air Cond Capacity in PD	25,4	15,7	1,010	89,9	69,1	1,010
12 New Energy Ton of Air Cond in PD	25,4	15,7	1,010	89,9	69,1	1,010
13 Real Property Inventory (RPI) in PD	2,807	1,594	1,010	89,9	69,1	1,010
14 RPI Effective Population	94	56	1,010	89,9	69,1	1,010
15 Energy Consumption GSF in PD	35,103	86,131	50,182	33,501	29,855	75,212
16 Thermal En. Consumption GSF in PD	20,159	59,130	30,9	19,766	17,201	48,633
17 Electrical En. Consumption GSF in PD	14,944	26,200	19,191	13,735	12,654	26,579
18 RPI by Category						
Training	445	445	144	134	134	912
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Covered Storage						
Hospital & Medical						
Administration						
Resident Housing						
Community Facilities						
Family Housing						
Operational Buildings						
Utility Buildings						
Other						

PD in Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *RPI Pop is Resident & Non-Resident

Fort Dix

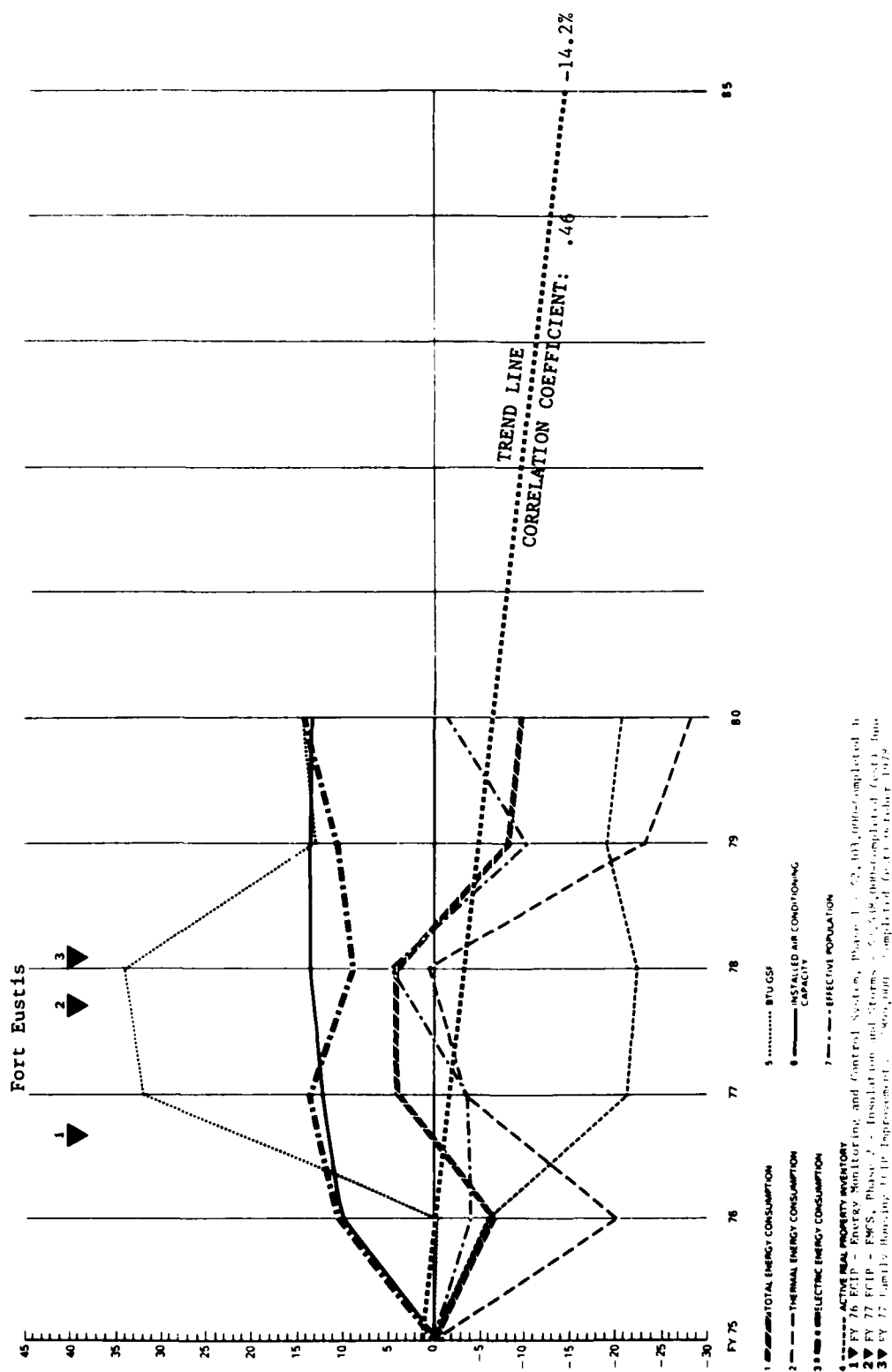


U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION II, DIX, N. I. MACOM TRAMP CLIMATIC REGION¹ HDD 5,110 CDD 501

UNIT/SP	78	79	80	81	82	83	84	85	86
1 Energy Consumption & PD	2,805,469	2,771,214	1,021,209	1,021,209	1,021,209	1,021,209	1,021,209	1,021,209	1,021,209
2 Thermal En. Cons. & PD	1,061,829	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
3 Electrical En. Cons. & PD	861,640	859,696	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
4 Resident Population & PD	15,255	20,216	11,611	11,611	11,611	11,611	11,611	11,611	11,611
5 Non-Resident Population & PD	3,368	6,082	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
6 Population Service ² & PD	19,123	25,818	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
7 Effective Population ³ & PD	16,818	22,092	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
8 En. Consumption/Pop Served & PD	166.7	111.7	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
9 En. Consumption/Pop & PD	166.7	111.7	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
10 Electric En. Consumption/Resident Population	52.4	42.5	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
11 Installed Air Cond. Capacity & PD	5,922	6,245	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
12 Electric Energy/Ton of Air Cond. & PD	121.8	117.7	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
13 Real Property Inventory (RPI) & PD	11,920	11,095	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
14 RPI/Effective Population	271	50	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
15 Energy Consumption/GSF & PD	235,338	249,951	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
16 Thermal En. Consumption/GSF & PD	164,750	172,466	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
17 Electrical En. Consumption/GSF & PD	10,407	17,485	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
18 kWh by Category	566	200	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Thermal	131	309	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Electrical	4	4	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Research, Development & Testing	877	843	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Storage	581	530	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Other Covered Storage	542	449	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Magazine & Material	6,518	1,881	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Administration	921	921	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Recycling Housing	1,131	2,721	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Community Facilities	218	218	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Family Housing	160	157	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Operational Buildings	157	157	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518
Other	157	157	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518	1,011,518

1 FY 77 Family Housing ECIP Improvements = \$506,114 - Completed (estimated) October 1978

REMARKS



UNIT/SP	76	77	78	79	80
1 Energy Consumption to PD	1,754,955	1,643,932	1,831,011	1,832,336	1,612,721
2 Thermal En Core to PD	985,038	1,129,571	952,176	989,461	736,800
3 Electrical En Core to PD	771,957	854,884	878,835	842,875	876,921
4 Resident Population to PD	11,661	11,602	11,455	10,911	10,257
5 Non Resident Population to PD	4,051	3,199	3,151	3,087	2,951
6 Population Served** to PD	15,714	14,601	14,606	13,998	13,208
7 Effective Population*** to PD	13,012	12,468	12,562	13,607	12,827
8 En Consumption/Pop Served to PD	131.9	112.6	123.8	136.4	126.6
9 En Consumption/En Pop to PD	135.2	121.8	135.8	134.2	123.9
10 Electric En Consumption/Effective Population	864.4	754.0	768.1	771.2	813.3
11 Insulated Air Cond Capacity to PD	8,152	9,003	9,100	9,235	9,235
12 Elec Energy/Ton of Air Cond to PD	94.9	94.9	94.9	91.3	92.6
13 Real Property Inventory 1975 to PD	8,012	7,524	6,324	6,218	6,503
14 1975 House Population	62	60	50	46	56
15 Energy Consumption/GSF to PD	218,938	218,492	289,534	296,682	248,004
16 Thermal En Consumption/GSF to PD	122,619	104,876	150,538	159,128	116,562
17 Electrical En Consumption/GSF to PD	96,319	113,616	138,976	135,554	131,442
18 1975 En Category	1,351	1,351	1,010	1,015	1,152
Training	654	649	310	310	317
Maintenance & Production	54	54	52	52	55
Research, Development & Testing	555	532	3	3	4
Storage	173	173	407	403	407
Other General Storage	173	173	151	151	151
Hospital & Medical	624	369	325	347	486
Administration	2,164	2,016	1,667	1,379	1,431
Bachelor Housing	658	607	527	519	562
Community Tie Area	2,019	1,793	1,793	1,801	1,796
Family Housing	176	161	65	55	55
Operational Site Area	50	56	53	50	40
Utility Buildings	50	56	53	50	40
Other	50	56	53	50	40

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *En Pop in Resident + 100 Non-Resident

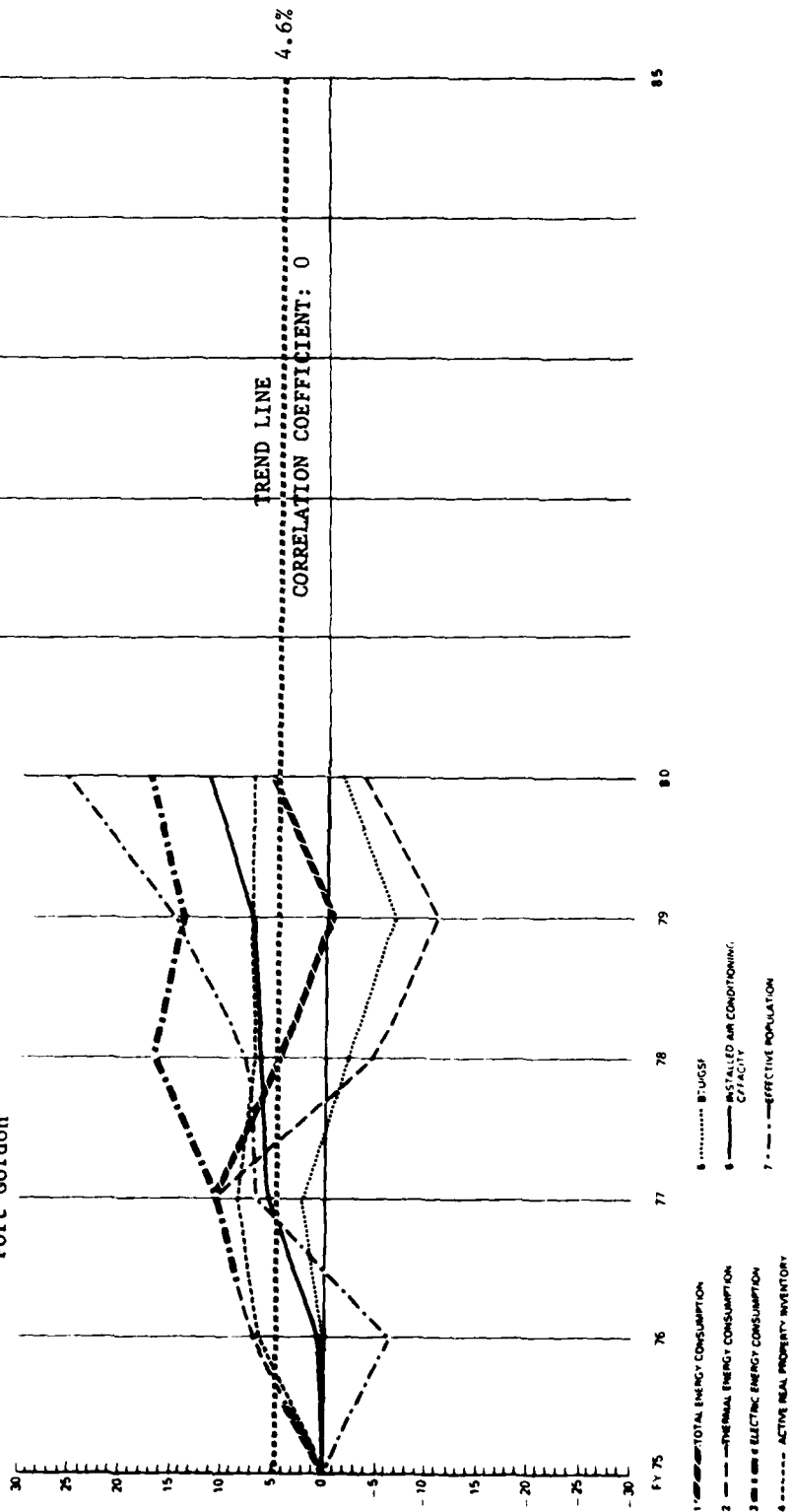
REMARKS Includes Ft Story data which was reported separately in FY75 and FY76, but combined herein for consistency.

1 FY 76 ECIP - Energy Monitoring and Control System, Phase 1 - \$2,303,000 - Completed June 1977

2 FY 77 ECIP - EACS, Phase 2 - Insulation and Storms - \$2,538,000 - Completed (estimated) June 1978

3 FY 77 Family Housing ECIP Improvements - \$899,000 - Completed (estimated) October 1978

Fort Gordon



UNIT/TYPE	PS	PM	PP	PR	PD
MBTU	2,504,063	2,280,017	2,072,750	1,911,739	1,748,264
Thermal En Cons & PD	1,481,455	1,384,610	1,240,323	1,141,739	1,032,375
Electrical En Cons & PD	1,117,584	1,195,507	1,537,435	1,303,142	1,215,869
PEOPLE	11,685	11,052	13,101	13,292	16,266
Non Resident Population & PD	10,201	9,650	9,403	9,475	8,832
Effective Population*** & PD	22,146	20,702	22,504	22,767	25,078
Population Served*** & PD	13,252	14,240	16,265	16,650	19,190
Electric Population*** & PD	116.1	104.3	122.6	119.2	109.6
En Consumption/Pop Served & PD	170.2	196.8	176.9	165.0	143.2
En Consumption/Pop & PD	95.6	106.2	96.4	98.0	81.0
En Consumption/Resident Population	19,314	19,435	20,459	20,580	21,581
Installed Air Cond Capacity & PD	57.8	61.5	60.5	61.3	61.0
En Consumption of Air Cond & PD	8,941	9,544	9,600	9,563	9,592
Heat Property Inventory Btu's & PD	230,688	201,284	296,707	283,894	286,514
Heat Effective Population	165,692	166,012	169,123	167,625	169,330
Thermal En Consumption/GSF & PD	134,996	125,252	137,586	136,269	137,184
Electrical En Consumption/GSF & PD	1,331	1,432	1,406	1,332	1,366
En by Category					
Maintenance & Production	381	385	422	391	392
Research, Development & Training	12	18	18	16	16
Storage	657	710	17	17	16
Other Covered Storage	387	1,009	777	732	762
Hospital & Medical	616	611	733	717	739
Administration	2,981	2,952	594	591	621
Residential Housing	965	917	1,163	1,077	1,057
Community Facilities	1,285	1,270	949	1,002	1,093
Family Housing	281	211	1,270	1,270	1,275
Operational Buildings	19	21	249	216	219
Utility Buildings	19	15	88	93	93
Other			35	15	18

**Pop is Percent Deviation from Base Year

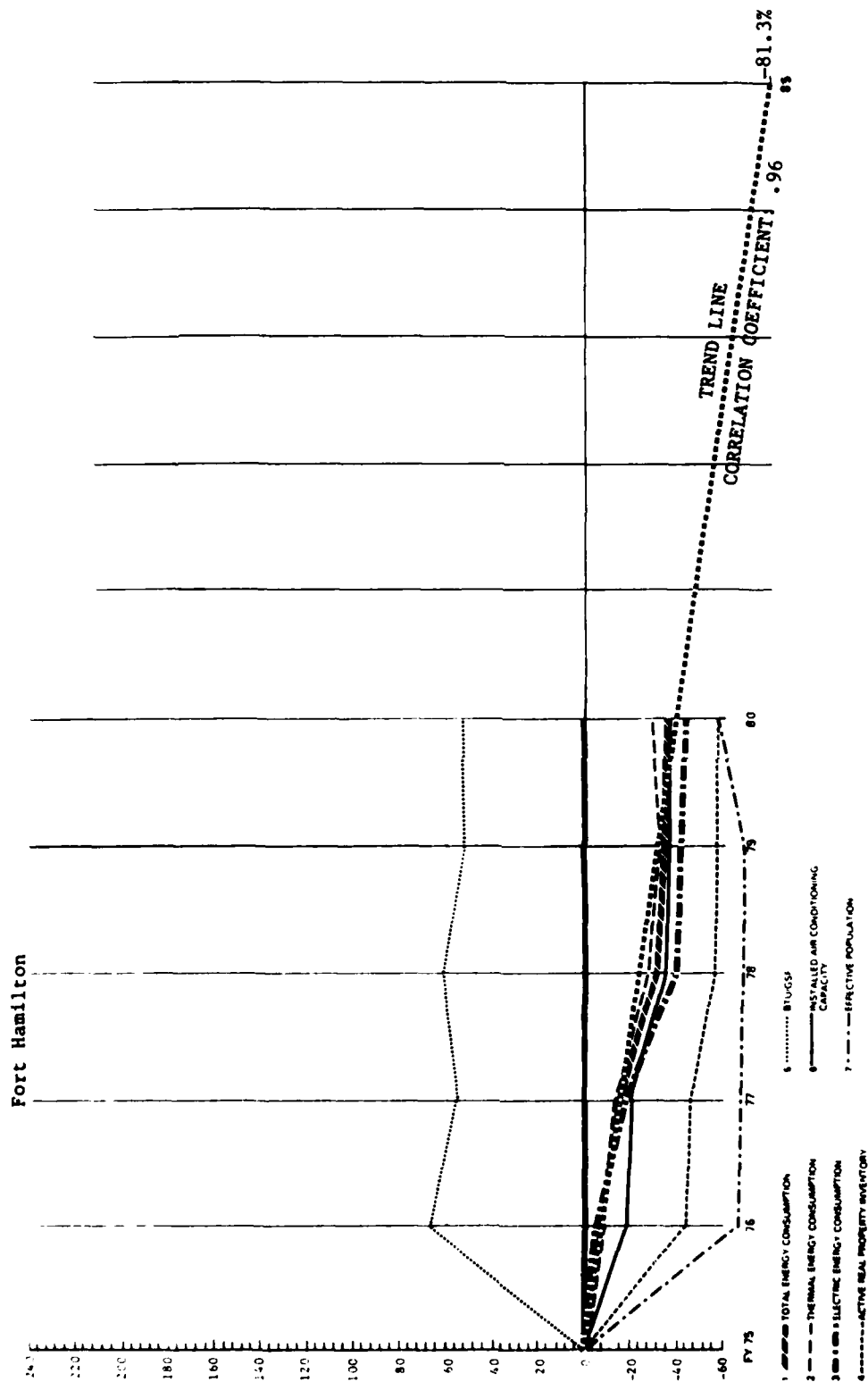
**Population Served is the total Resident & Non Resident Population

**Pop is Resident + 1/3 Non-Resident

- 1 Energy Consumption & PD
- 2 Thermal En Cons & PD
- 3 Electrical En Cons & PD
- 4 Resident Population & PD
- 5 Non Resident Population & PD
- 6 Effective Population*** & PD
- 7 Electric Population*** & PD
- 8 En Consumption/Pop Served & PD
- 9 En Consumption/Pop & PD
- 10 En Consumption/Resident Population
- 11 Installed Air Cond Capacity & PD
- 12 En Consumption of Air Cond & PD
- 13 Heat Property Inventory Btu's & PD
- 14 Heat Effective Population
- 15 Thermal En Consumption/GSF & PD
- 16 Electrical En Consumption/GSF & PD
- 17 En by Category

- Maintenance & Production
- Research, Development & Training
- Storage
- Other Covered Storage
- Hospital & Medical
- Administration
- Residential Housing
- Community Facilities
- Family Housing
- Operational Buildings
- Utility Buildings
- Other

REMARKS

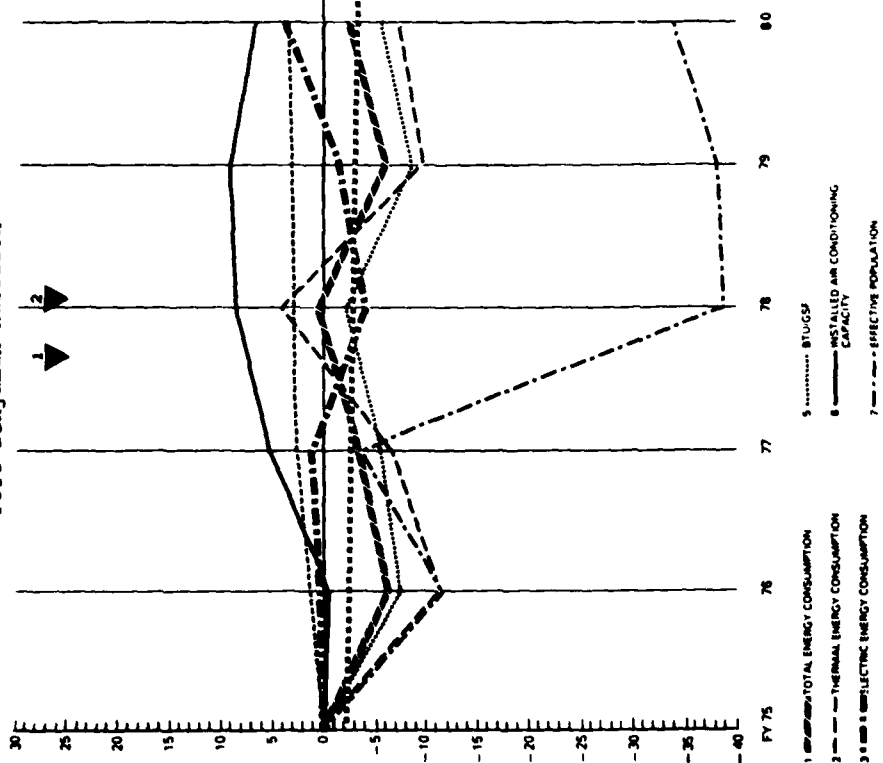


CLIMATIC REGION 7 HDD 5,184 CDD 861

...[41 Pop = President + 173 Non-Presidents

Reported as a FORSCOM Installation in FY75. Transferred to TRADOC as a sub-Installation of Ft Dix as of FY77 but is reported separately. As a result of the transfer, no report was submitted for FY76 so the above data for FY76 is estimated for comparison purposes.

Fort Benjamin Harrison



1. TOTAL ENERGY CONSUMPTION
2. THERMAL ENERGY CONSUMPTION
3. ELECTRIC ENERGY CONSUMPTION
4. ACTIVE MILITARY PERSONNEL
5. STUGS
6. INSTALLED AIR CONDITIONING CAPACITY
7. EFFECTIVE POPULATION

2. FY77 ECIP-Insulation & Electric Alterations-\$109,000-Completed (Estimated) June 1978
2. FY77 Family Housing ECIP Improvements-\$28,000-Completed (Estimated) Oct 1978

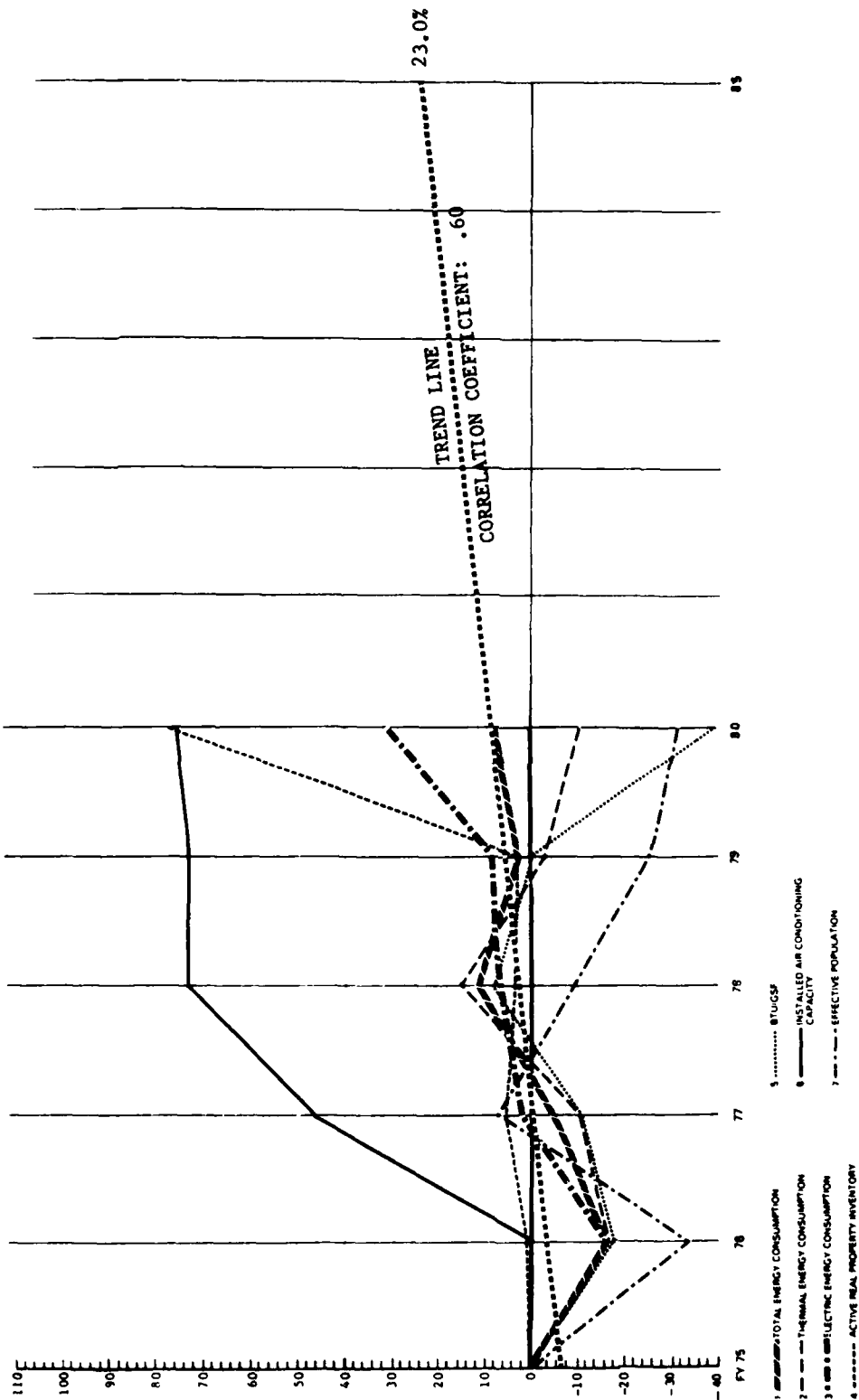
U S Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - FT. BENJAMIN HARRISON, MACOM, TRADOC INTD. CLIMATIC REGION 2 MOD 3,577 CDD 974

UTILITY	76	77	78	79	80
1 Energy Consumption & PD	1,273,276	1,232,062	1,277,063	1,198,376	1,224,998
2 Thermal En Cons & PD	700,102	653,010	727,926	635,113	649,250
3 Electrical En Cons & PD	572,974	579,054	549,137	563,213	592,748
4 People	3,588	2,826	2,751	3,090	3,130
5 Non-Resident Population & PD	13,523	12,158	12,503	12,806	13,097
6 People	12,161	10,887	11,241	11,521	11,812
7 Electric Population*** & PD	15,887	15,909	15,298	14,896	15,427
8 Electric Population**** & PD	7,180	7,804	7,963	8,025	8,162
9 En Consumption/Pop Served & PD	74.2	77.4	77.3	73.7	77.6
10 En Consumption/Pop & PD	156.9	157.9	157.3	158.2	161.6
11 Electric En Consumption/Population	159.7	156.4	156.5	157.3	161.6
12 Electric En Cons Capacity & PD	8,187	8,624	8,874	8,914	9,077
13 Electric En Cons Capacity & PD	69.9	67.1	63.9	63.2	68.1
14 Electric En Cons Capacity & PD	6,798	6,921	6,922	6,941	7,058
15 Electric En Cons Capacity & PD	59	63	99	98	92
16 Electric En Cons Capacity & PD	265,376	250,375	259,460	242,527	250,504
17 Thermal En Consumption/Pop & PD	145,957	132,699	147,892	128,539	130,950
18 Thermal En Consumption/Pop & PD	119,419	117,676	111,568	113,988	119,554
19 Thermal En Consumption/Pop & PD	921	1,037	1,026	1,022	971
20 Thermal En Consumption/Pop & PD	121	205	107	108	238
21 Thermal En Consumption/Pop & PD	179	2	2	2	2
22 Thermal En Consumption/Pop & PD	136	189	210	231	259
23 Thermal En Consumption/Pop & PD	1,502	1,504	1,507	1,507	1,511
24 Thermal En Consumption/Pop & PD	885	867	900	900	870
25 Thermal En Consumption/Pop & PD	378	375	403	424	459
26 Thermal En Consumption/Pop & PD	584	597	578	578	578
27 Thermal En Consumption/Pop & PD	28	16	16	16	24
28 Thermal En Consumption/Pop & PD	33	18	34	34	34
29 Thermal En Consumption/Pop & PD	33	18	34	34	34
30 Thermal En Consumption/Pop & PD	33	18	34	34	34
31 Thermal En Consumption/Pop & PD	33	18	34	34	34
32 Thermal En Consumption/Pop & PD	33	18	34	34	34
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35 Thermal En Consumption/Pop & PD	33	18	34	34	34
36 Thermal En Consumption/Pop & PD	33	18	34	34	34
37 Thermal En Consumption/Pop & PD	33	18	34	34	34
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97 Thermal En Consumption/Pop & PD	33	18	34	34	34
98 Thermal En Consumption/Pop & PD	33	18	34	34	34
99 Thermal En Consumption/Pop & PD	33	18	34	34	34
100 Thermal En Consumption/Pop & PD	33	18	34	34	34

PD is Percent Distribution from Base Year **Population Served is two total Residents & Non-Resident Population ***Pop & Resident + 102 Non-Resident

1 FT 77 ECIP - Insulation and Electric Alterations - \$109,000 - Completed (estimated) June 1978
2 FT 77 Family Housing ECIP Improvements - \$28,000 - Completed (estimated) October 1978

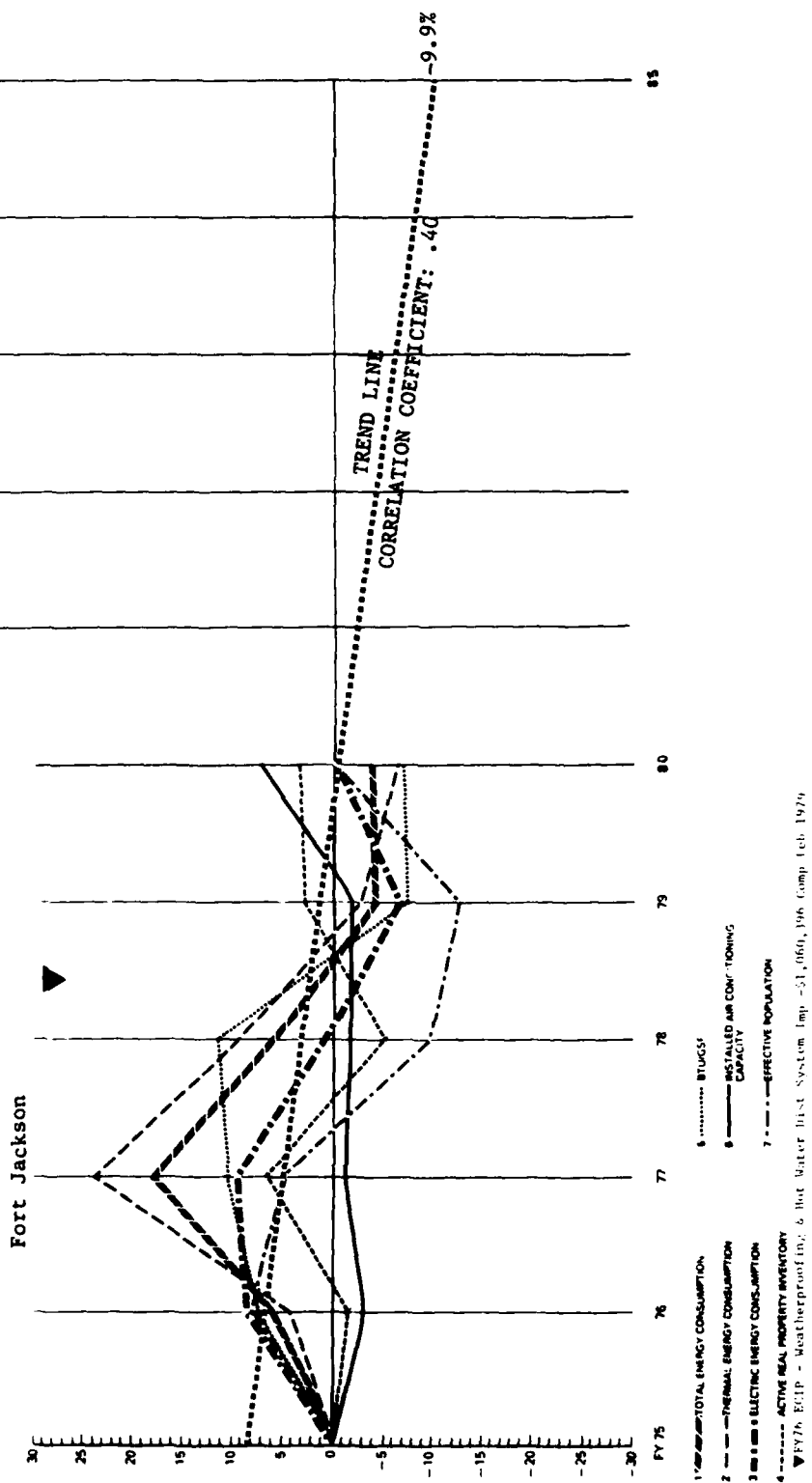
Fort A. P. Hill



UNITARY	76	77	78	79	80
1 Energy Consumption & PD	80,082	76,310	89,352	81,728	86,046
2 Thermal En Cons & PD	45,436	41,208	52,721	44,134	41,200
3 Electrical En Cons & PD	34,626	35,102	36,631	37,594	44,846
4 Resident Population & PD	1,054	1,130	940	756	704
5 Non Resident Population & PD	361	367	603	356	291
6 Population Servant** & PD	1,415	1,497	1,403	1,112	985
7 Effective Population*** & PD	1,174	1,252	1,074	875	801
8 En Consumption/Pop Served & PD	56.6	51.0	66.5	73.5	86.5
9 En Consumption/Pop Served & PD	60.2	61.0	83.2	93.4	107.4
10 Electric En Consumption/Pop Served & PD	116	116	120	120	134
11 Installed Air Cond Capacity & PD	296.8	206.5	182.3	187.0	204
12 Elec Energy/Ton of Air Cond & PD	51.0	54.8	53.7	53.1	51.7
13 Heat Property Auxiliary (RPR) & PD	44	44	50	50	50
14 Appliances Population	134,262	139,252	166,400	153,913	163,834
15 Energy Consumption/GSF & PD	87,921	75,197	98,177	83,115	44,929
16 Thermal En Consumption/GSF & PD	46,111	46,055	69,223	70,798	48,905
17 Electrical En Consumption/GSF & PD	16	16	15	15	15
18 pop by Category					
Training	16	16	15	15	15
Maintenance & Production	16	16	15	15	15
Research, Development & Testing	16	16	15	15	15
Storage	129	123	116	116	123
Other Covered Storage	5	5	5	5	5
Hospital & Medical	51	51	51	51	51
Administration	190	183	178	178	109
Bedchamber Housing	47	47	49	49	49
Community Facilities	17	17	19	19	6
Family Housing	6	6	6	6	6
Quartermaster Buildings	44	29	4	4	4
Utility Buildings	44	29	4	4	4
Other	44	29	4	4	4

Population Served is the total Resident & Non-Resident Population *Eff Pop is Resident + 1/2 Non-Resident

REMARKS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. JACKSON, S.C. MACOM TRAINING CLIMATIC REGION 7 MDD 2.59R CDD 2.082

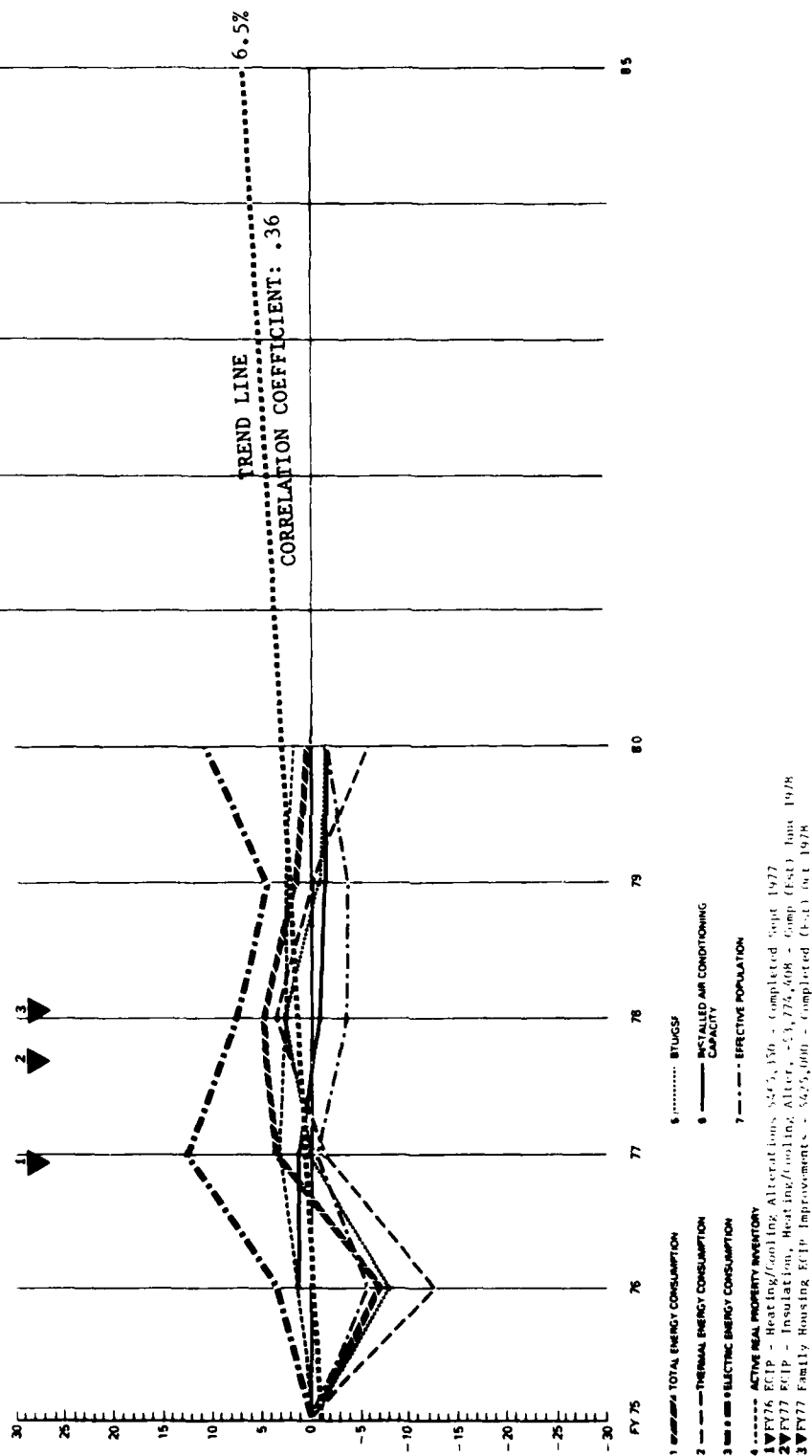
UNIT/STY	75	76	77	78	79	80
1 Energy Consumption & PD	2,593,453	2,149,645	1,855,945	2,248,788	2,479,416	2,405,416
2 Thermal En Cons & PD	1,505,362	1,567,982	1,870,272	1,649,213	1,466,833	1,408,925
3 Electrical En Cons & PD	1,088,092	581,663	1,193,718	1,099,515	1,012,583	996,491
4 Resident Population & PD	17,389	18,933	18,481	15,296	13,682	14,168
5 Non-Resident Population & PD	8,571	8,768	8,331	8,009	5,976	6,108
6 Population Services** & PD	25,960	27,701	26,812	23,605	21,458	20,716
7 Effective Population*** & PD	20,246	21,856	21,258	18,266	17,474	16,704
8 En Consumption/Pop Served & PD	100.0	99.3	116.3	116.4	114.5	102.8
9 En Consumption/Pop & PD	128.2	125.8	144.2	150.5	140.3	123.5
10 Electric En Consumption/Resident Population	62.7	65.5	64.7	70.5	66.8	59.8
11 Installed Air Cond Capacity & PD	13,074	12,660	12,952	12,824	12,879	14,020
12 Elec Energy/Ton of Air Cond & PD	83.4	91.4	92.3	85.7	79.2	77.5
13 Heat Property Inventory BHP & PD	10,383	10,216	11,087	9,868	10,670	10,732
14 Ineff Effective Population	350,020	269,203	216,535	278,555	232,372	232,321
15 Energy Consumption/GSF & PD	145,011	151,446	149,686	167,133	137,099	131,283
16 Thermal En Consumption/GSF & PD	105,008	113,757	107,803	111,623	95,271	101,338
17 Electrical En Consumption/GSF & PD	39,003	37,689	41,883	55,510	41,828	29,945
18 BHP by Category						
Training	910	916	988	933	989	923
Manufacture & Production	162	168	346	337	337	311
Research, Development & Testing						
Storage	644	649	19	22	27	65
Other Controlled Storage						
Hazardous & Medical	517	517	579	635	648	566
Administration	292	262	671	520	491	500
Dishwasher Housing	4,288	4,241	290	313	318	318
Community Facilities	1,114	1,114	6,397	6,156	4,558	4,567
Family Housing	1,237	1,696	1,420	1,346	1,109	1,100
Overseas Bar Camp	415	424	1,696	964	1,682	1,688
Utility Buildings	82	82	207	112	112	254
Other			888	438	372	72

PD is Percent Deviation from Base Year *En Cons & PD is Resident & Non-Resident Population

▼ FT. Jb ECIP - Weatherproofing and Hot Water Distribution System - \$1,060,306 - Completed February 1979

REMARKS

Fort Knox

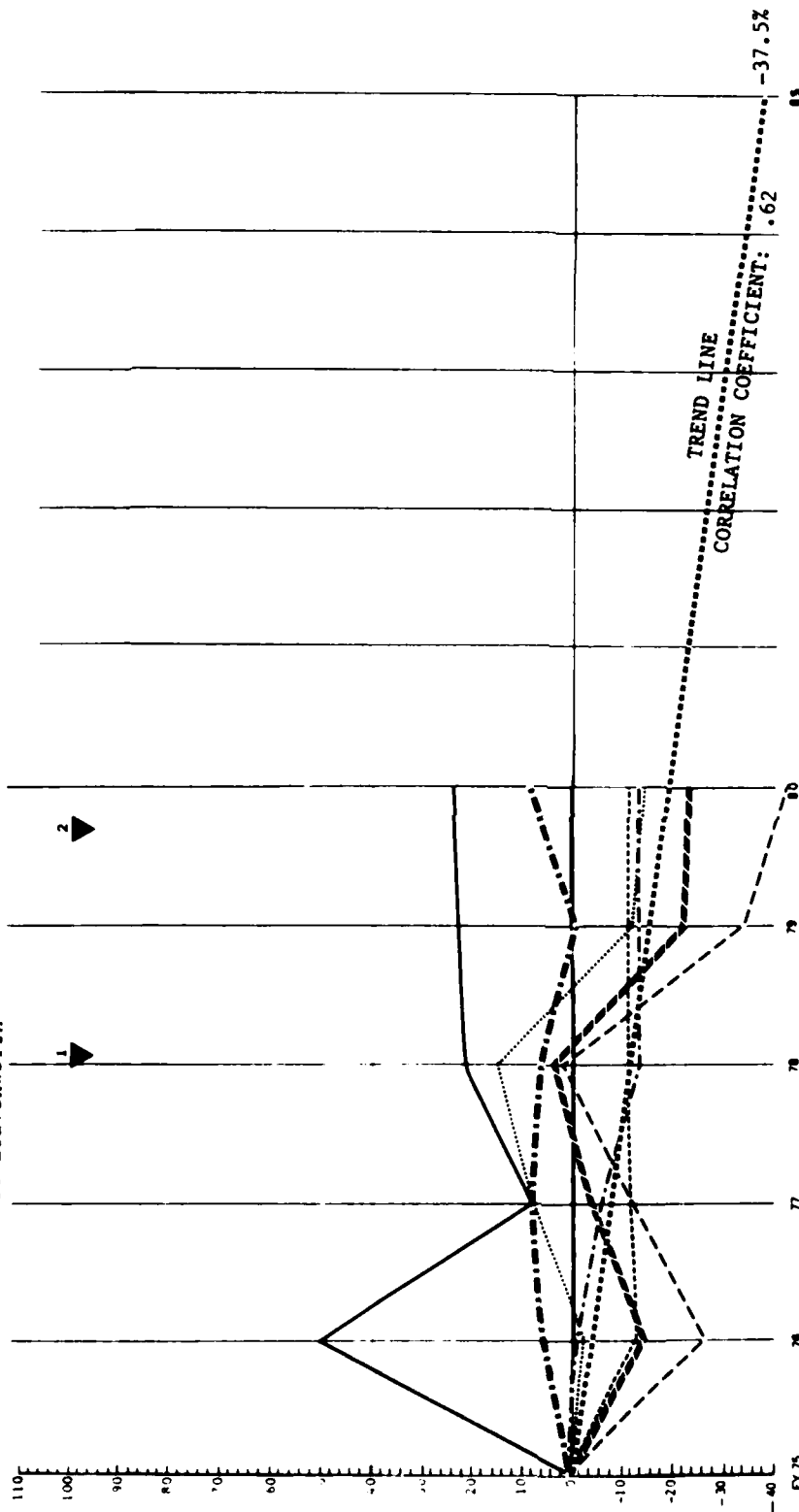


ON, - INSTALLATION.

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ECIP	Project Description	Year	Population Served to the total Resident to Non-Resident Population	**ECIP # of Residents + 1/3 Non-Residents
11	ECIP 76 Heating/Cooling Alterations \$465,350 - Completed September 1977			
22	ECIP 77 Insulation, Heating/Cooling Alterations, Heating Plants Modifications - \$3,774,408 - Completed (estimated) June 1978			
33	ECIP 77 Family Housing ECIP Improvements - \$425,000 - Completed (estimated) October 1978			

Fort Leavenworth



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION FT. LEAVENWORTH, KS. MACOM TPA/OC CLIMATIC REGION HDD 4,822 CDD 1,292

UTILITY	75	76	77	78	79	80
1 Energy Consumption is PD	1,502,661	1,297,425	1,444,206	1,560,060	1,190,416	1,153,169
2 Thermal En Cons is PD	916,612	874,587	898,756	936,036	607,215	519,650
3 Electrical En Cons is PD	286,029	622,284	635,450	624,024	583,401	613,490
4 Resident Population is PD	9,002	8,883	8,484	7,275	7,748	7,262
5 Non-Resident Population is PD	2,954	3,075	2,925	2,823	2,825	2,283
6 Population Served** is PD	11,956	11,958	11,409	10,594	10,573	10,545
7 Effective Population*** is PD	9,982	9,998	9,459	8,716	8,690	8,670
8 En Consumption/Pop Served is PD	125.7	106.5	123.77	147.2	122.6	122.87
9 En Consumption/Pop is PD	130.5	130.9	131.01	179.0	137.0	133.0
10 Electric En Consumption/Resident Population	65.1	70.1	74.9	80.3	75.3	81.8
11 Installed Air Cond Capacity is PD	6,762	7,180	5,152	5,815	5,833	5,888
12 Elec Energy/ton of Air Cond is PD	123.1	86.7	133.3	107.3	100.0	107.6
13 Real Property Inventory (RPI) is PD	2,756	6,836	6,912	6,962	6,943	6,921
14 RPI/Effective Population	231.5	231.5	231.5	80.1	80.1	80.1
15 Energy Consumption/GSP is PD	103,219	189,900	208,942	224,082	171,484	166,616
16 Thermal En Consumption/GSP is PD	118,181	298,496	117,008	134,449	87,457	75,083
17 Electrical En Consumption/GSP is PD	11,358	316,081	91,931	89,633	84,027	91,531
18 En Cons/Category	653	521	433	433	411	414
19 Training	256	256	252	252	259	257
20 Maintenance & Production	311	316	381	381	372	374
21 Research, Development & Testing	141	141	147	144	143	143
22 Storage	326	319	416	407	410	415
23 Other Covered Storage	805	753	665	727	736	700
24 Hospital & Medical	621	657	753	755	753	761
25 Administration	1,911	1,687	1,493	1,459	1,452	1,451
26 Bachelor Housing	144	144	89	89	89	89
27 Community Fm Hous	636	636	81	79	79	82
28 Family Housing	636	636	81	79	79	82
29 Operational Bld Grgs	636	636	81	79	79	82
30 Utility Buildings	636	636	81	79	79	82
31 Other	636	636	81	79	79	82

**PD is Percent Deviation from Base Year

**Population Served is the total Residents & Non-Resident Population

***Eff Pop is Resident + 1/2 Non-Resident

1 FY 77 Family Housing ECIP Improvements - \$179,418 - Completed (estimated) October 1978

2 FY 79 ECIP - Storm Windows & Weatherstripping - \$404,000 - Completed July 1980

2



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION EL LEE, VA MACOM TRADS CLIMATIC REGION 4 HDD 1,212 CDD 1,323

UNITARY	76	77	78	79	80
1 Energy Consumption & PD	1,661,553	1,755,187	1,840,084	1,737,544	1,758,276
2 Thermal En Cons & PD	934,517	982,905	1,030,448	916,646	889,850
3 Electrical En Cons & PD	590,959	676,718	772,282	820,898	868,426
4 Population & PD	10,026	10,407	10,250	11,080	10,881
5 Non-Resident Population & PD	5,988	5,737	5,761	5,468	5,761
6 Population Served** & PD	15,852	16,144	16,033	16,548	16,604
7 Effective Population*** & PD	11,670	12,319	12,170	12,903	12,763
8 En Consumption/Pop Served & PD	104.8	102.5	102.5	105.0	105.9
9 En Consumption/Pop & PD	150.7	142.5	142.5	134.7	137.8
10 Electric En Consumption/Population	61.1	74.2	79.0	83.1	89.3
11 Installed Air Cond Capacity & PD	5,077	10,986	11,645	11,250	11,202
12 Elec Energy/Ton of Air Cond & PD	116.4	70.3	69.5	78.4	82.8
13 Real Property Inventory (RPI) & PD	7,595	7,654	7,689	7,684	7,642
14 RPI/Electric Population	.65	.62	.63	.59	.60
15 Energy Consumption/GSF & PD	216,136	229,216	239,113	227,908	230,081
16 Thermal En Consumption/GSF & PD	138,327	128,417	134,015	107,115	103,357
17 Electrical En Consumption/GSF & PD	77,809	100,899	105,098	120,793	126,724
18 kWh by Category					
Training	918	894	894	894	894
Maintenance & Production	273	267	245	245	245
Research, Development & Training	22	23	23	23	23
Storage	441	11	11	11	11
Other Covered Storage					
Hospital & Medical	357	334	330	330	330
Administration	531	564	553	553	554
Residence Housing	1,973	2,015	2,023	2,119	2,131
Community Facilities	626	624	616	623	621
Family Housing	2,150	2,150	2,150	2,150	2,150
Operational Buildings	260	260	260	260	250
Utility Buildings	44	39	39	39	39
Other					

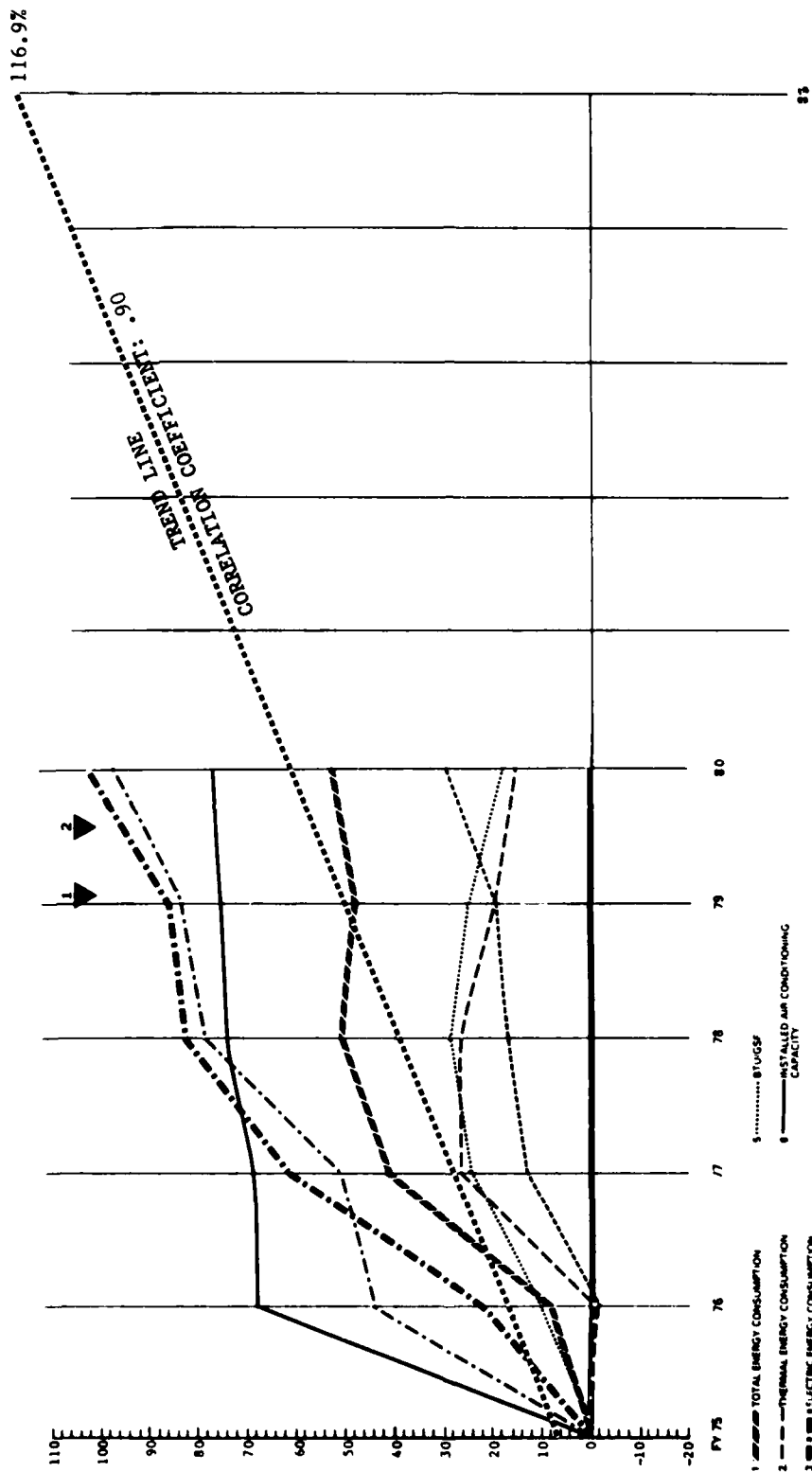
**Populations Served to the total Resident & Non-Resident Population

**El Pop is Resident + 1/3 Non-Resident

1977 76 ECIP - Building Improvements - \$917,000 - Completed June 1977

2977 77 ECIP - Energy Monitoring/Control System - \$1,342,800 - Completed (estimated) June 1978

Fort McClellan

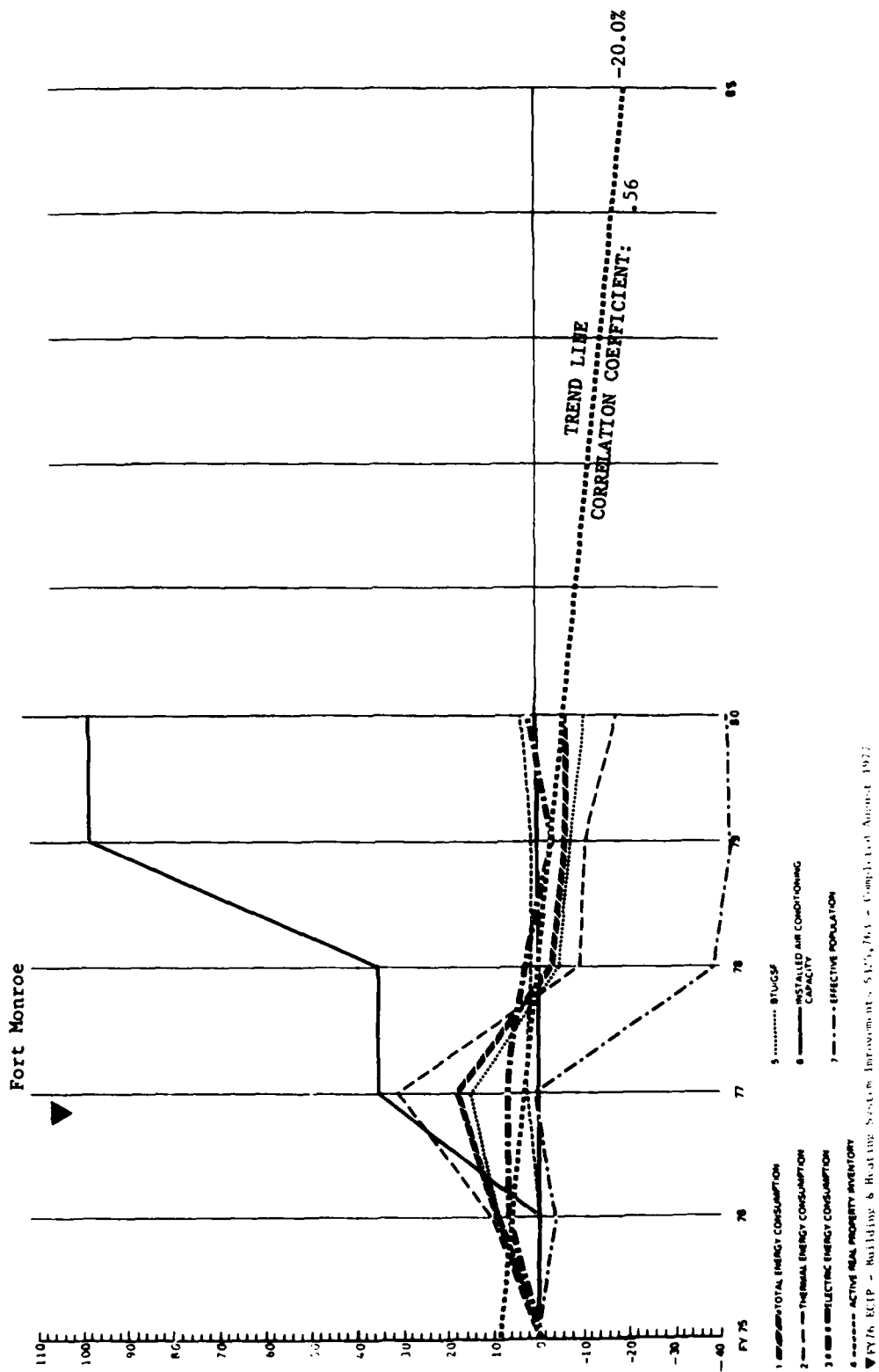


UNIT/SPY	76	77	78	79	80
1 Energy Consumption & PD	825,438	1,371,193	1,245,301	1,219,423	1,261,480
2 Thermal En. Cons & PD	470,495	597,745	597,745	597,745	597,745
3 Electrical En. Cons & PD	356,934	773,448	647,556	621,678	663,735
4 Resident Population & PD	5,211	7,636	8,132	8,132	8,132
5 Non-Resident Population & PD	3,036	5,310	5,081	5,081	5,081
6 Population Served*** & PD	8,247	12,946	13,213	13,213	13,213
7 Electric Population*** & PD	6,223	9,413	11,146	11,146	11,146
8 En. Consumption/Pop Served & PD	132.6	124.4	124.4	124.4	124.4
9 En. Consumption/Pop Served & PD	132.6	124.4	124.4	124.4	124.4
10 Electric En. Consumption/Pop Served & PD	68.1	101.5	111.7	111.7	111.7
11 Incandescent Air Cond Capacity & PD	4,588	7,721	7,721	7,721	7,721
12 Elec Energy/Time of Air Cond & PD	77.4	26.2	26.2	26.2	26.2
13 Real Property Inventory BPS & PD	4,751	5,373	5,373	5,373	5,373
14 Real Property Inventory BPS & PD	4,751	5,373	5,373	5,373	5,373
15 Energy Consumption/GSP & PD	173,737	217,896	224,419	217,172	204,586
16 Thermal En. Consumption/GSP & PD	99,030	111,127	107,721	99,899	88,035
17 Electrical En. Consumption/GSP & PD	74,707	106,769	116,697	117,273	116,551
18 Energy Category	710	825	851	918	918
19 Heating	191	208	205	205	215
20 Maintenance & Production	665	18	19	18	19
21 Research, Development & Testing	665	18	19	18	19
22 Storage	665	18	19	18	19
23 Other Command Storage	665	18	19	18	19
24 Hospital & Medical	157	358	362	354	382
25 Administration	282	381	362	354	382
26 Resident Housing	1,439	1,740	1,761	1,761	2,102
27 Community Facilities	469	585	593	593	748
28 Family Housing	863	855	851	850	870
29 Operational Support	1,092	1,066	1,071	1,071	1,071
30 Utility Buildings	48	50	50	50	51
31 Other	48	50	50	50	51

**PD is Percent Distribution from Base Year

***Pop to Resident + 100 Non-Resident

REMARKS 1W FT 76 ECIP - Heating & Cooling System/Improvements - \$1,982,000 - Completed October 1979
2V FT 78 ECIP - Heating & Cooling System/Improvements - \$1,671,000 - Completed May 1980



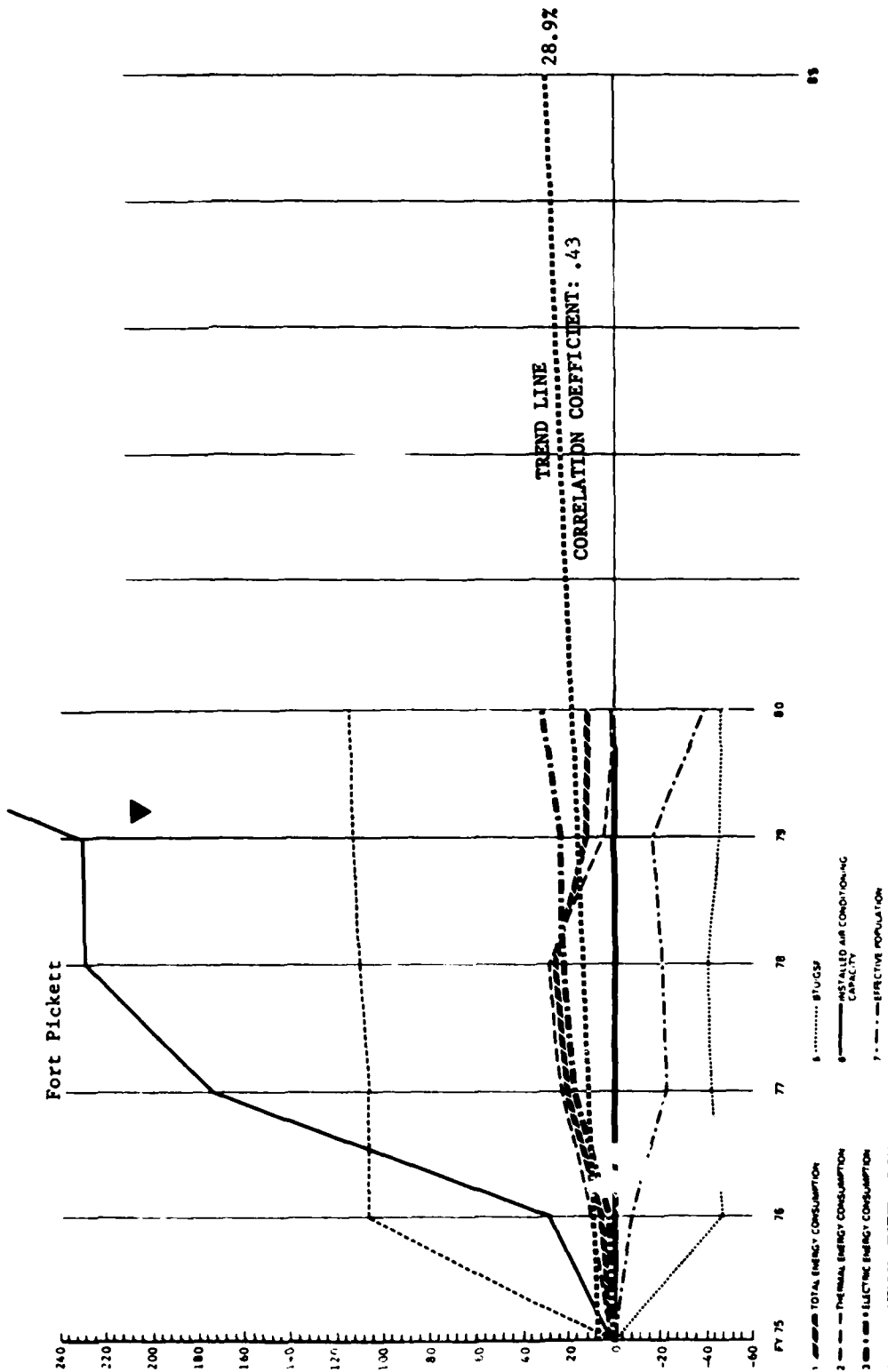
Unit/Category	76	77	78	79	80	81
1 Energy Consumption to PD	130.117	160.241	176.61	331.211	319.113	315.363
2 Thermal En Cons to PD	153.082	159.851	170.71	330.118	317.219	315.575
3 Electrical En Cons to PD	187.025	199.390	200.072	330.113	317.894	315.788
4 Residential Population to PD	1.981	1.890	1.872	1.872	1.872	1.872
5 Non-Residential Population to PD	2.560	2.554	2.554	2.554	2.554	2.554
6 Population Served** to PD	4.541	4.444	4.426	4.426	4.426	4.426
7 Effective Population*** to PD	2.834	2.741	2.741	2.741	2.741	2.741
8 En Consumption/Pop Served to PD	24.9	31.1	31.1	31.1	31.1	31.1
9 En Consumption/En Pop to PD	120.0	134.2	134.2	134.2	134.2	134.2
10 Electrical En Consumption/Population	94.4	102.5	102.5	102.5	102.5	102.5
11 Installed Air Cond Capacity to PD	1.166	1.166	1.166	1.166	1.166	1.166
12 Elec Energy/Ton of Air Cond to PD	160.4	171.0	171.0	171.0	171.0	171.0
13 Real Property Inventory (RPI) to PD	1.922	1.922	1.922	1.922	1.922	1.922
14 RPI/Effective Population	68	70	70	70	70	70
15 Energy Consumption/GSF to PD	176.970	192.113	203.372	331.211	319.113	315.363
16 Thermal En Consumption/GSF to PD	29.637	88.372	101.766	331.211	319.113	315.363
17 Electrical En Consumption/GSF to PD	97.333	101.741	101.766	331.211	319.113	315.363
18 RPI by Category						
Transm	3	3	3	3	3	3
Manufacture & Production	161	161	161	161	161	161
Research, Development & Testing	10	10	10	10	10	10
Storage	111	111	111	111	111	111
Other Covered Storage	270	270	270	270	270	270
Hazardous & Medical	385	385	385	385	385	385
Administration	203	203	203	203	203	203
Bachelor Housing	268	268	268	268	268	268
Community Facilities	647	647	647	647	647	647
Family Housing	18	18	18	18	18	18
Operational Buildings	51	51	51	51	51	51
Utility Buildings	36	36	36	36	36	36
Other	19	19	19	19	19	19

**Pop Served is the total Resident & Non-Resident Population

**PD as Percent Deviation from Base Year

▼ FY 76 ECIP - Building & Heating System Improvements \$325,763 - Completed August 1977

REMARKS



A-136

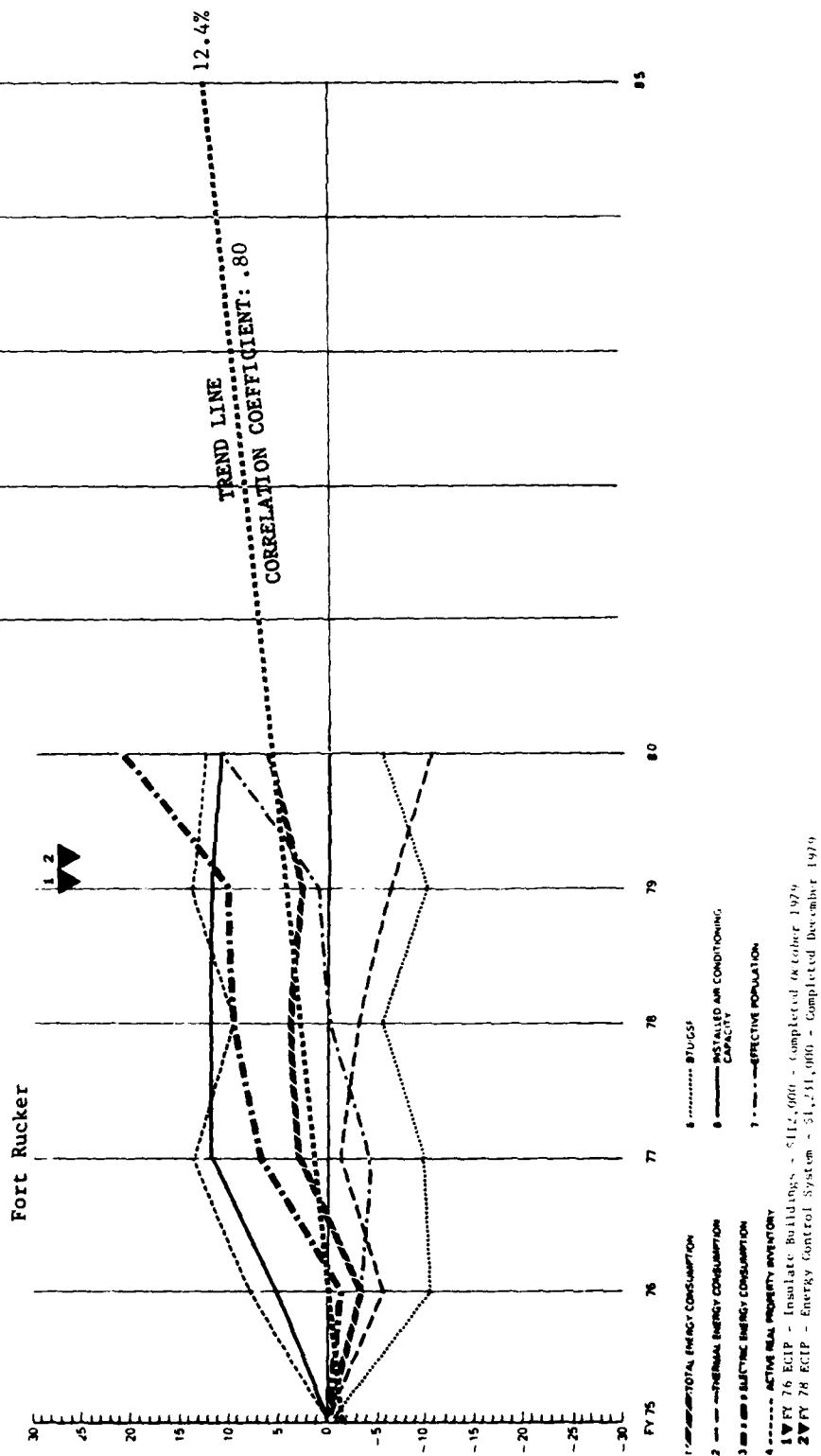
▼ FY 79 ECIP - Insulation & Heating System Alterations - \$239,000 Completed December 1979

UNIT/TYPE	76	77	78	79	80
1 Energy Consumption to PD	156,134	167,064	170,064	175,300	173,149
2 Thermal En Cons to PD	91,681	103,580	115,209	119,241	92,100
3 Electrical En Cons to PD	62,453	63,484	54,855	56,099	81,049
4 Resident Population to PD	1,622	1,327	1,039	1,116	742
5 Non-Resident Population to PD	609	1,071	1,059	1,025	1,110
6 Population Served** to PD	2,231	2,398	2,098	2,141	1,852
7 Effective Population*** to PD	1,825	1,686	1,397	1,438	1,112
8 En Consumption/Pop Served to PD	70.0	69.7	90.0	92.5	93.5
9 En Consumption/Pop to PD	85.5	99.2	135.7	136.5	155.7
10 Electric En Consumption/Pop to PD	38.5	47.8	70.9	69.8	109.2
11 Installed Air Cond Capacity to PD	88	213	240	289	410
12 Elec Energy/Ton of Air Cond to PD	709.7	561.8	306.9	266.9	197.7
13 Heat Recovery Inventory Btu's to PD	1,393	2,859	2,859	2,918	2,971
14 Heat Recovery Population	76	1,701	2,051	2,061	2,67
15 Energy Consumption/GSF to PD	112,085	58,436	66,060	66,813	58,280
16 Thermal En Consumption/GSF to PD	67,251	36,229	40,297	40,756	31,000
17 Electrical En Consumption/GSF to PD	44,834	22,205	25,763	26,057	27,280
18 kWh by Category					
Training	311	188	188	255	314
Maintenance & Production					
Research, Development & Testing					
Storage					
Other General Storage					
Housing & Medical					
Administration					
Recreation & Dining					
Community Facilities					
Family Housing					
Operational Support					
Utility Buildings					
Other					

PD at Percent Deviation from Base Year *En Cons to Resident & Non-Resident Population

WFT 79 ECIP - Insulation & Heating System Alterations - \$239,000 - Completed December 1979

REMARKS

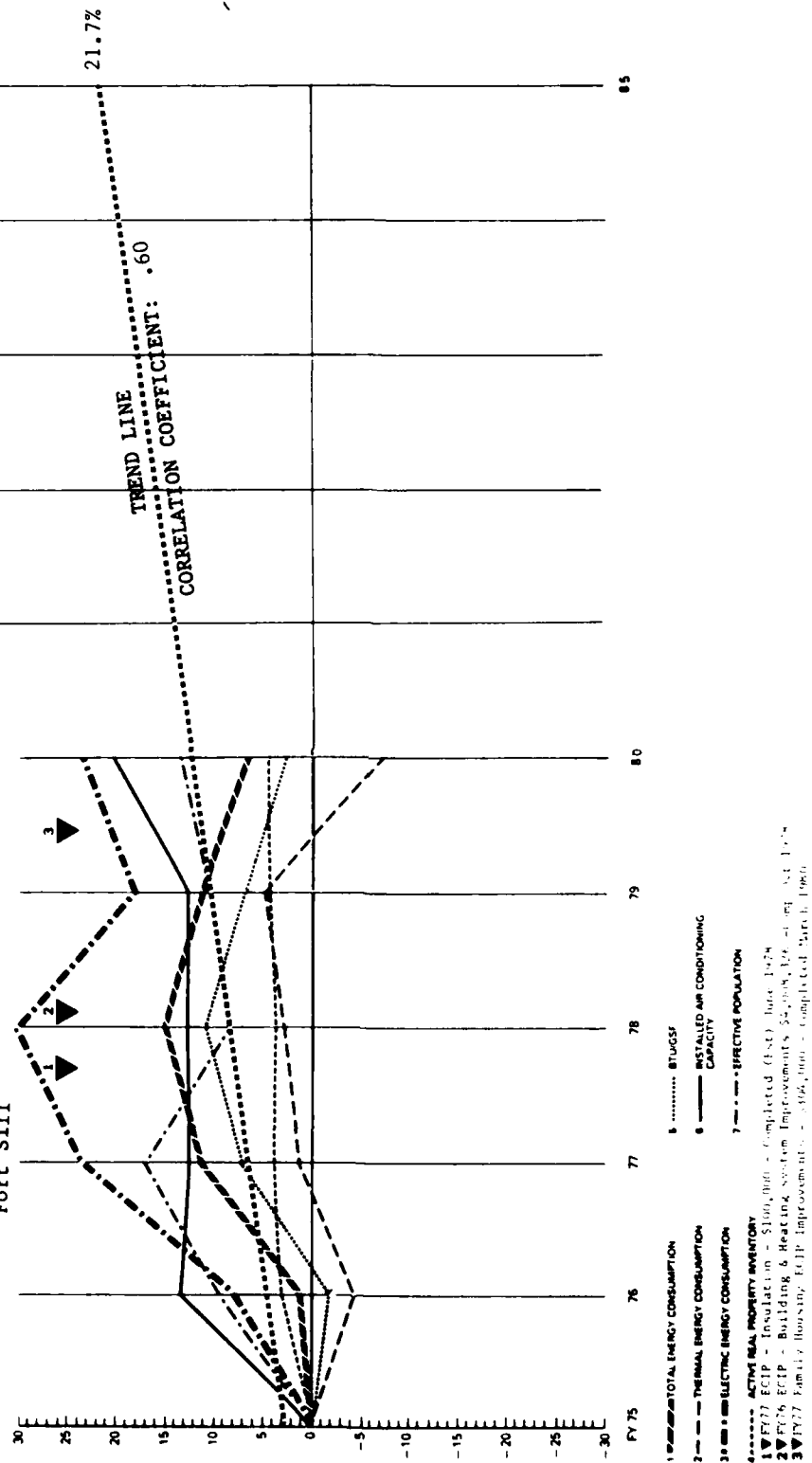


ANALYSIS OF ENERGY CO

POPULATION SERVED IN THE TOTAL RESIDENT & NON-RESIDENT POPULATION

1 WPP 76 ECIP - Insulate Buildings - \$112,000 - Completed October 1979
2 WPP 78 ECIP - Energy Control System - \$1,231,000 - Completed December 1979

Fort Sili



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION ET. SILL, OK MACOM TRAINING CLIMATIC REGION 7 HDD 3,167 CDD 2,217

Unit/Category	76	77	78	79	80
1 Energy Consumption in PD	2,460,157	2,400,527	2,400,198	2,400,101	2,400,101
2 Thermal En. Cons. in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
3 Thermal En. Cons. in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
4 Residential En. Cons. in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
5 Non-Residential En. Cons. in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
6 Population Served** in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
7 Effective Population*** in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
8 En. Consumption/Pop. Served in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
9 En. Consumption/Pop. Served in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
10 Electric En. Consumption/Pop. Served in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
11 Installed Air Cond. Capacity in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
12 Electric En. Consumption/Air Cond. Capacity in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
13 Heat Recovery Population	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
14 Heat Recovery Population	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
15 Energy Consumption/GSP in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
16 Thermal En. Consumption/GSP in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
17 Electrical En. Consumption/GSP in PD	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
18 kWh by Category	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Training	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Manufacturing & Production	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Research, Development & Testing	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Storage	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Other General Storage	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Industrial & Medical	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Administration	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Recreation Housing	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Community Facilities	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Family Housing	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Operational Buildings	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Utility Buildings	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274
Other	1,410,424	1,410,274	1,410,274	1,410,274	1,410,274

**Population Served in PD (Total Population & Non-Residential Population)

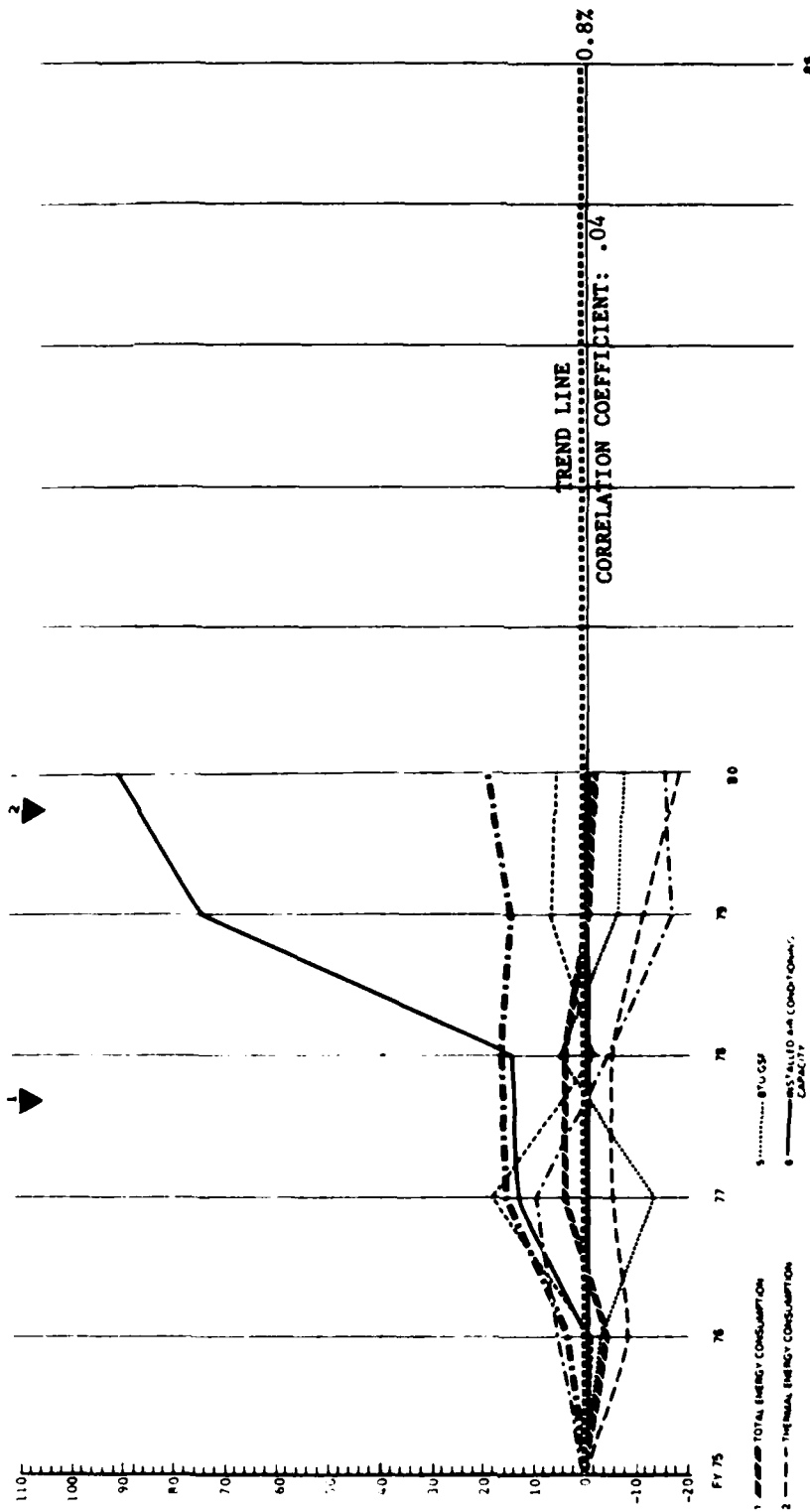
1 FY 77 ECIP - Insulation - \$170,000 - Completed (estimated) June 1978

2 FY 76 ECIP - Building and Heating System Improvements \$4,008,326 - Completed October 1978

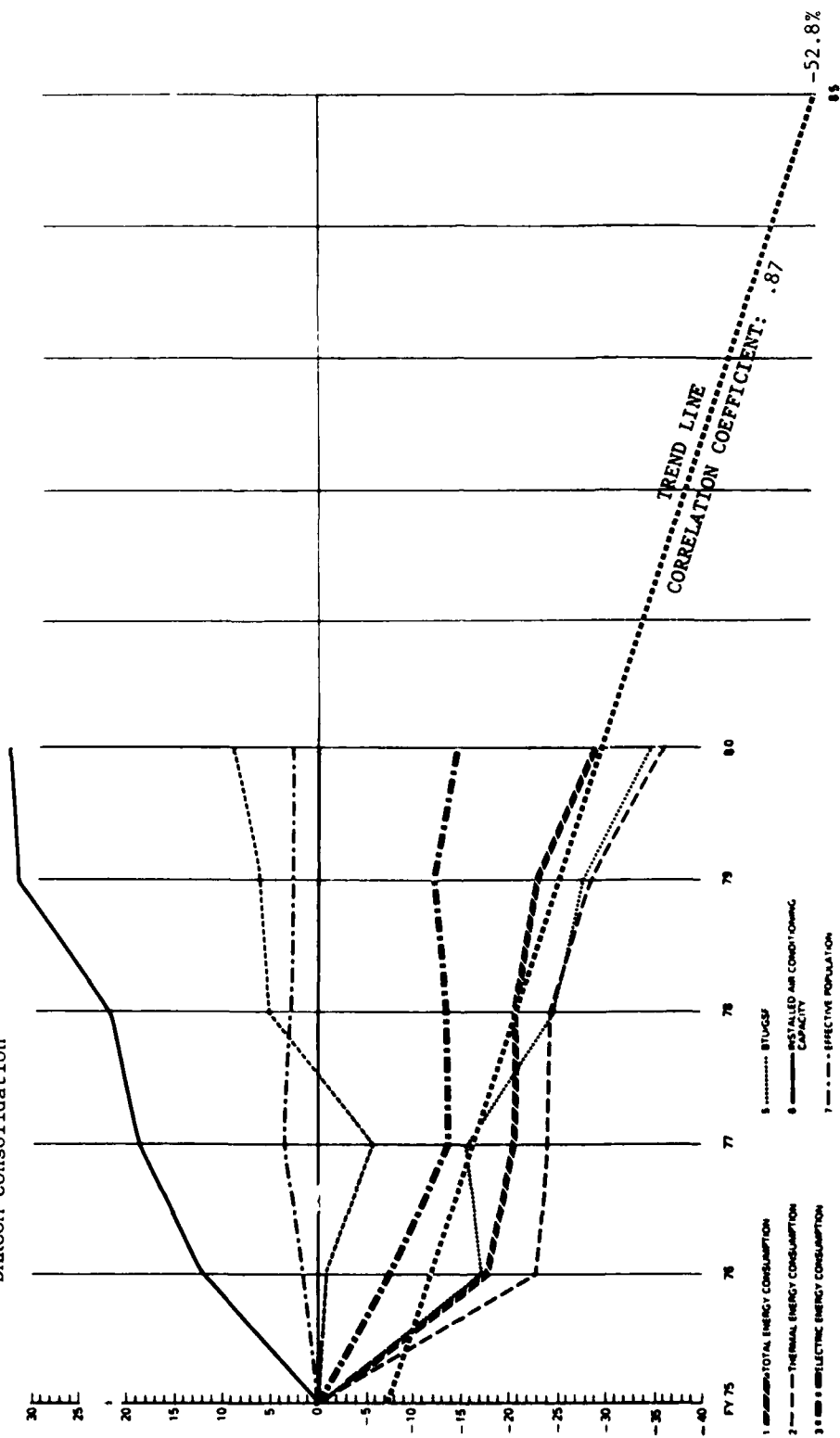
3 FY 77 Family Housing ECIP Improvements - \$104,000 - Completed March 1980

REMARKS

Fort Leonard Wood



DARCOM Consolidation



NOTE: THE EFFECTIVE POPULATION PILOT FOR FY 79 WAS AVERAGED HIGHEN TO 78 IN 1980 TO AVOID DISTORTION CAUSED BY REPORTING ERROR BY SELFPIKE AND IN FY 79.

U.S. Army ANALYSIS OF ENERGY CONSUMPTION

INSTALLATION CONSOLIDATION MACOM DARCOW

UNIT/ACT	75	76	77	78	79	80
1 Energy Consumption & PD	58,902,087	48,404,949	46,762,743	46,773,325	45,346,153	41,857,628
2 Thermal En Cons & PD	39,304,720	30,296,437	29,874,660	29,761,092	28,129,942	25,132,808
3 Electrical En Cons & PD	19,597,367	18,108,512	16,886,083	16,062,233	17,209,404	16,724,820
4 Resident Population & PD	16,789	37,902	42,749	38,222	55,485	40,162
5 Non-Resident Population & PD	152,310	152,832	143,200	153,731	154,952	148,479
6 Population Service** & PD	182,132	180,739	185,958	193,953	210,632	188,641
7 Effective Population*** & PD	87,379	88,848	90,485	90,132	102,336	89,655
8 En Consumption/Pop Served & PD	311.4	233.8	231.5	240.2	215.3	221.9
9 En Consumption/Pop & PD	672.6	542.8	516.8	518.4	422.5	466.9
10 Electric En Consumption/Resident Population	523.7	477.7	495.1	443.2	309.0	416.4
11 Insulated Air Cond Capacity & PD	114,801	128,613	136,136	139,660	150,920	152,175
12 Rec Energy/Pop of Air Cond & PD	170.7	140.8	126.1	121.4	114.0	109.9
13 Rec Property Inventory 1979 & PD	199,679	197,824	188,032	209,813	213,673	216,939
14 Utilization Population	2.28	2.23	2.08	2.32	1.97	2.42
15 Energy Consumption/GDP & PD	294,984	244,685	248,696	222,690	214,243	192,947
16 Thermal En Consumption/GDP & PD	184,840	153,158	158,881	141,866	132,943	115,852
17 Electrical En Consumption/GDP & PD	109,144	91,527	89,815	80,824	81,302	77,095
18 EPI by Category						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other General Storage						
Hospital & Medical						
Administration						
Bachelor Housing						
Community For Bn						
Family Housing						
Quartermaster Bldg						
Utility Buildings						
Other						
Total Available						

**PD is Percent Distribution from Base Year

***Population Served is the total Resident & Non-Resident Population

****EPI Pop is Resident + 1/3 Non-Resident

REMARKS

DEPOT Consolidation- DARCOM



U.S. Army ANALYSIS OF ENERGY CONSUMPTION

INSTALLATION DEPT. CONSOLIDATION MACOM DABCOM

UNIT/ACT	75	76	77	78	79	80
1 Energy Consumption & PD	8,646,146	9,259,621	8,662,902	8,381,209	8,180,484	7,868,125
2 Thermal En Cons & PD	4,692,025	5,176,151	4,739,859	4,439,683	4,327,236	4,026,450
3 Electrical En Cons & PD	3,952,122	4,083,470	3,923,043	3,941,526	3,853,248	3,841,675
4 Resident Population & PD	3,510	3,510	3,510	3,510	3,510	3,510
5 Non Resident Population & PD	3,510	3,510	3,510	3,510	3,510	3,510
6 Population Serv** & PD	4,524,8	4,524,8	4,524,8	4,524,8	4,524,8	4,524,8
7 Effective Population*** & PD	46,758	46,758	46,758	46,758	46,758	46,758
8 En Consumption/Pop Served & PD	17,926	18,973	17,712	18,119	18,034	19,537
9 En Consumption/Pop & PD	186.9	167.5	187.2	178.5	176.0	154.3
10 Electric En Consumption/Resident Population	282.3	317.6	289.4	282.1	282.6	260.7
11 Insulated Air Cond Capacity & PD	1,126.0	1,061.1	1,146.0	1,032.5	1,020.3	1,006.7
12 Heat Energy/Ton of Air Cond & PD	18,023	18,712	20,149	20,242	21,215	21,717
13 Heat Energy/Ton of Air Cond to PD	219.3	207.5	196.5	193.7	183.0	176.9
14 Heat Energy/Ton of Air Cond to PD	75,390	74,113	75,710	76,831	77,924	78,694
15 Energy Consumption/GSF & PD	4.31	3.96	4.27	4.24	4.32	4.03
16 Thermal En Consumption/GSF & PD	115,688	110,522	114,488	109,086	104,980	99,986
17 Electrical En Consumption/GSF & PD	62,284	58,360	62,737	58,065	55,166	51,166
18 En by Category	57,424	51,962	51,751	51,041	49,815	48,818
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other General Storage						
Hospital & Medical						
Administration						
Residence Housing						
Community Fair Area						
Family Housing						
Quartermaster Buildings						
Utility Buildings						
Other						

**PD is Plan and Observation from Base Year

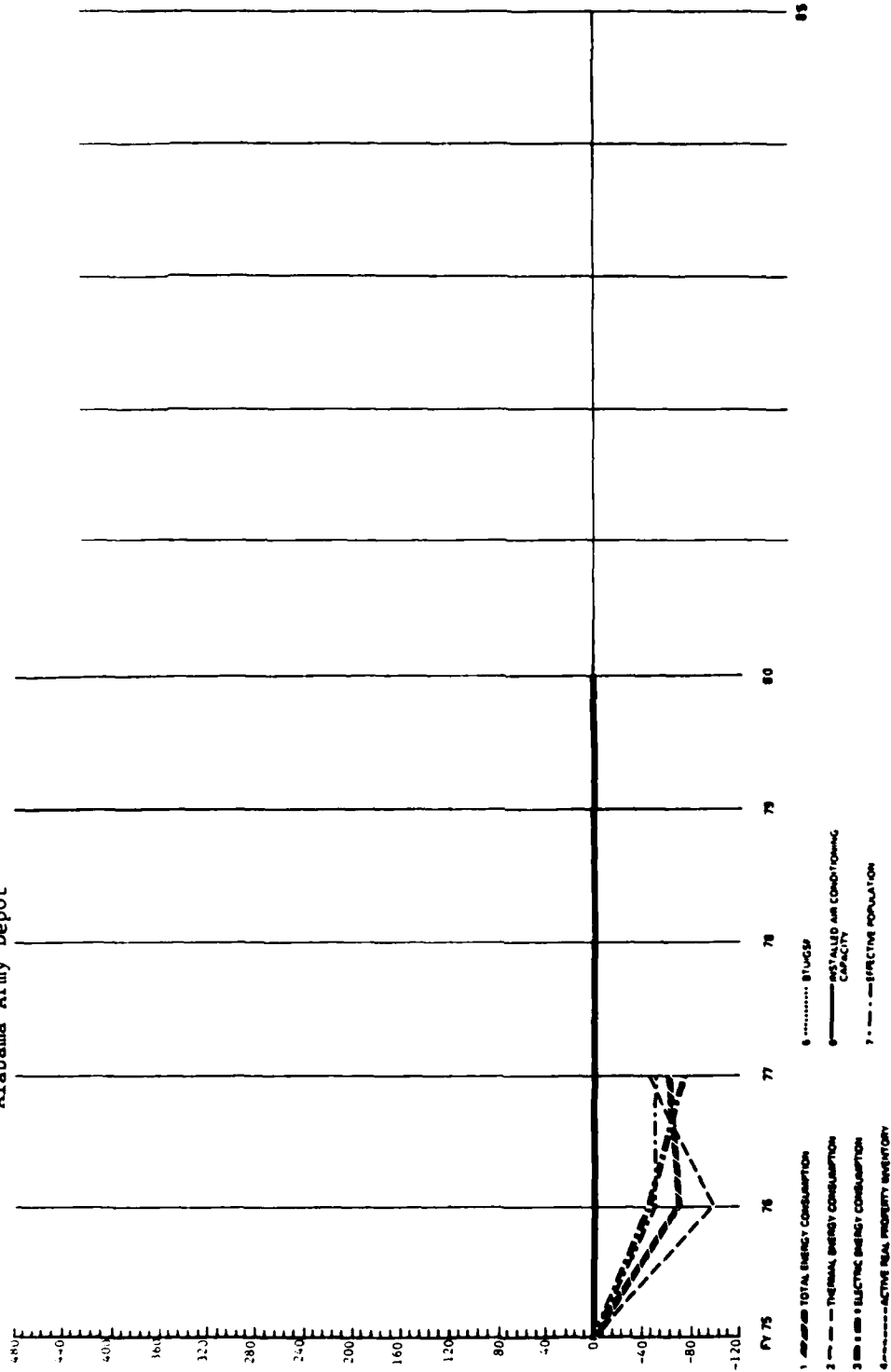
***Population Served is the Total Resident & Non Resident Population

***En Pop is Resident + 1/3 Non Resident

REMARKS

CORPUS CHRISTIE AD DATA WAS NOT REPORTED FOR FY 75. FY 76 DATA WAS ALSO USED FOR FY 75 FOR THIS CONSOLIDATION.

Alabama Army Depot

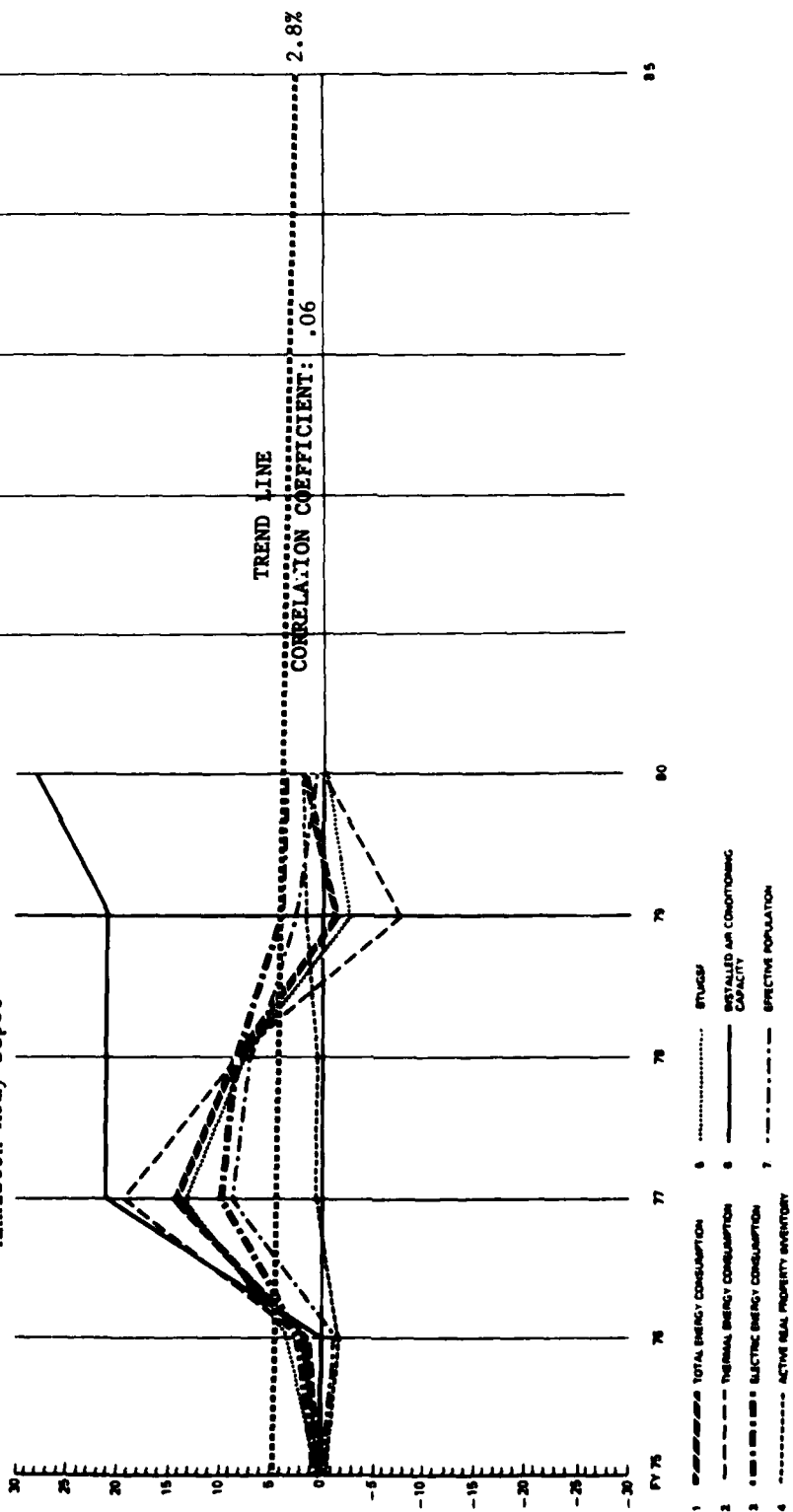


UNIT/SPY	%	%	%	%	%	%
1. Energy Consumption & PD	15,341	4,404	1,713.1	5,699	1,62.91	79
2. Thermal En Core & PD	7,211	89	1,98.8	3,262	1,47.81	79
3. Electrical En Core & PD	8,130	4,315	1,46.91	1,937	1,76.21	79
4. Resident Population & PD	0	0	0	0	0	79
5. Non-Resident Population & PD	41	20	1,51.21	20	1,51.21	79
6. Population Served** & PD	41	20	1,51.21	20	1,51.21	79
7. Effective Population*** & PD	14	7	1,50.01	7	1,50.01	79
8. En Consumption/Pop Served & PD	374.2	220.2	1,41.11	284.95	1,23.81	79
9. En Consumption/Pop & PD	1,095.8	629.1	1,42.61	814.1	1,25.71	79
10. Electric En Consumption/Resident Population	-	-	-	-	-	79
11. Installed Air Cond Capacity & PD	-	-	-	-	-	79
12. Elec Energy/Ton of Air Cond & PD	-	-	-	-	-	79
13. Real Property Inventory RPR & PD	1,739	-	-	-	-	79
14. RPR/Effective Population	124.2	-	-	-	-	79
15. Energy Consumption/GSF & PD	8,821.7	-	-	-	-	79
16. Thermal En Consumption/GSF & PD	4,166.6	-	-	-	-	79
17. Electrical En Consumption/GSF & PD	4,675.1	-	-	-	-	79
18. RPR by Category	-	-	-	-	-	79
Training	-	-	-	-	-	79
Maintenance & Production	-	-	-	-	-	79
Research, Development & Testing	-	-	-	-	-	79
Storage	-	-	-	-	-	79
Other Covered Storage	-	-	-	-	-	79
Hospital & Medical	-	-	-	-	-	79
Administration	-	-	-	-	-	79
Sanitation	-	-	-	-	-	79
Community For Rent	-	-	-	-	-	79
Family Housing	-	-	-	-	-	79
Quarantined Buildings	-	-	-	-	-	79
Utility Buildings	-	-	-	-	-	79
Other	-	-	-	-	-	79

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *RPR Pop is Resident + 1/3 Non-Resident

REMARKS In caretaker status since FY76.

Anniston Army Depot



486

1. Energy Consumption & PD
2. Thermal Enr. Cons. & PD
3. Electrical Enr. Cons. & PD
4. Resident Population & PD
5. Non-Resident Population & PD
6. Population Density*** & PD
7. Effective Population*** & PD
8. Enr. Consumption/Pop. Served & PD
9. Enr. Consumption/EST Pop. & PD
10. Specific Enr. Consumption/Resident Population
11. Installed Air Cond. Capacity & PD
12. Specific Use of Air Cond. & PD
13. Real Property Inventory (RPI) & PD
14. RPI/Resident Population
15. Energy Consumption/EST & PD
16. Thermal Enr. Consumption/EST & PD
17. Electrical Enr. Consumption/EST & PD
18. RPI by Category

Testing

Infrastructure & Production

Research, Development & Testing

Storage

Other Current Services

Health & Medical

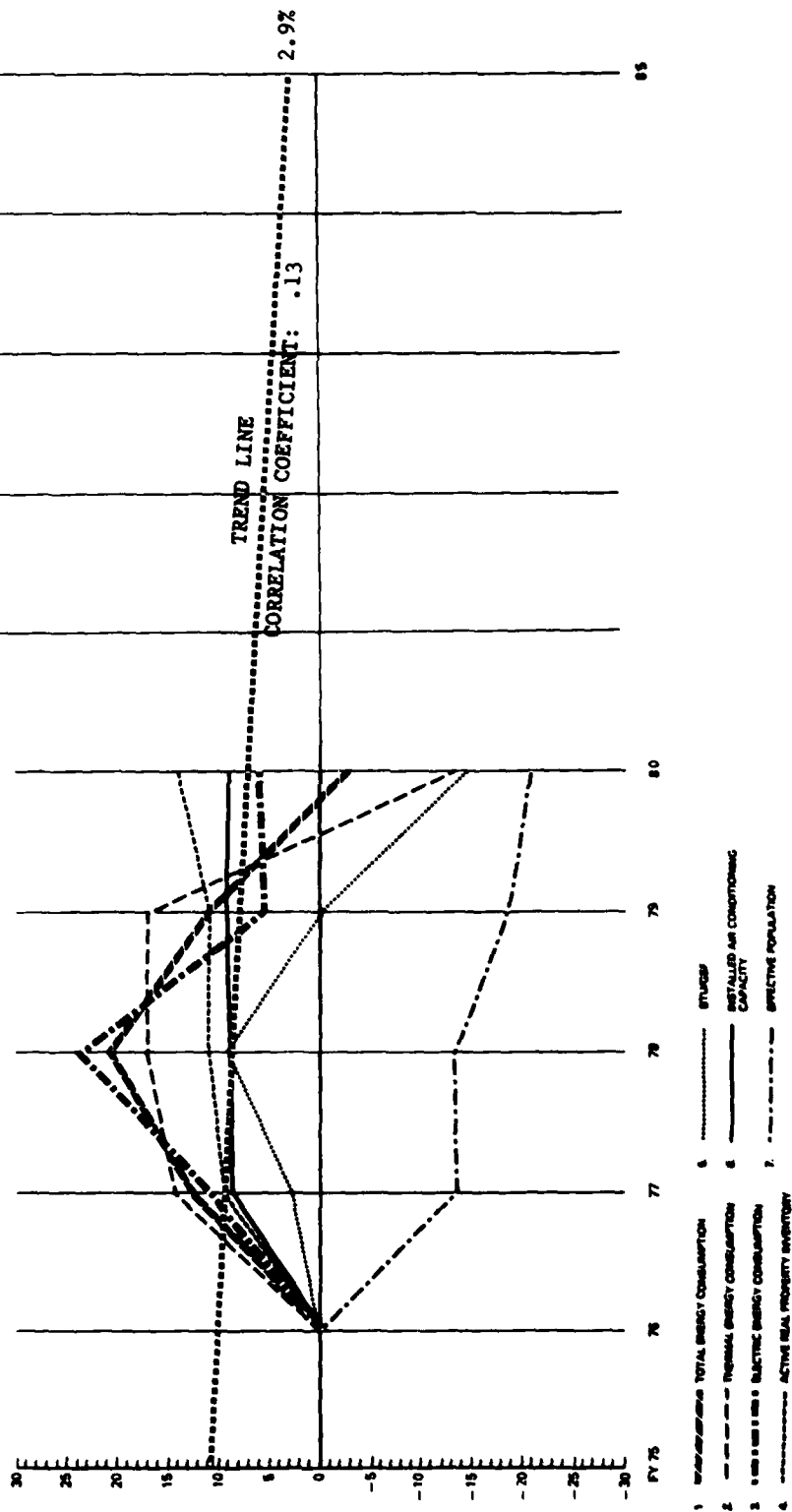
Administration

Sanitary Housing

Community Facilities

People Housing

Corpus Christi Army Depot



Activity	PD	MACOM	DARCOM	CLIMATE REGION 6	HDO 930	CDO 3.476	MO
1 Energy Consumption in PD	1,415	841,065	12.5	902,294	20.6	827,628	10.7
2 Thermal En. Cost in PD	314,650	188,700	14.4	397,100	17.0	397,275	17.0
3 Electrical En. Cost in PD	408,785	452,365	10.8	506,994	21.7	430,381	5.4
4 Resident Population in PD	0	0	0	0	0	0	0
5 Non-Resident Population in PD	1,975	1,438	13.5	1,446	13.3	3,227	18.8
6 Population Served** in PD	1,975	1,438	13.5	1,446	13.3	3,227	18.8
7 Effective Population*** in PD	1,125	1,149	13.5	1,149	13.3	1,076	10.4
8 En. Consumption/Pop Served in PD	188.2	244.6	30.0	261.8	39.1	256.5	36.3
9 En. Consumption/Pop Served in PD	564.5	723.9	30.0	785.3	39.1	769.2	36.3
10 Electrical En. Consumption/Population	5,415	5,888	8.7	5,888	8.7	5,900	9.0
11 Heating En. Cost Capacity in PD	1,616	76.8	1.9	85.8	13.8	71.2	1.2
12 Air Conditioning of Air Cooled in PD	1,213	1,780	9.5	1,802	10.8	1,802	10.8
13 Heat Property Investments BPS in PD	459,985	1,555	28.0	1,571	27.8	1,571	27.8
14 Inefficiency Population	208,887	472,508	2.7	500,718	8.9	459,390	8.9
15 Energy Consumption/GSF in PD	231,088	218,371	4.5	220,477	5.5	220,466	5.5
16 Thermal En. Consumption/GSF in PD	4	254,137	1.2	280,241	11.6	238,836	4.9
17 Electrical En. Consumption/GSF in PD	4	1,225	6	1,213	4	1,213	4
18 BPS by Category	1,189	1,225	6	1,213	4	1,213	4
Training	217	362	160	362	160	362	160
Maintenance & Production	2	150	29	150	29	150	29
Research, Development & Training	2	29	29	29	29	29	29
Storage	2	29	29	29	29	29	29
Other Covered Storage	2	29	29	29	29	29	29
Hospital & Medical	2	29	29	29	29	29	29
Administration	2	29	29	29	29	29	29
Recreation Housing	2	29	29	29	29	29	29
Community Facilities	2	29	29	29	29	29	29
Family Housing	2	29	29	29	29	29	29
Other Housing	2	29	29	29	29	29	29
Observational Bu. Drugs	2	29	29	29	29	29	29
Utility Buildings	2	29	29	29	29	29	29
Other	2	29	29	29	29	29	29

**PD is Percent Deviation from Base Year

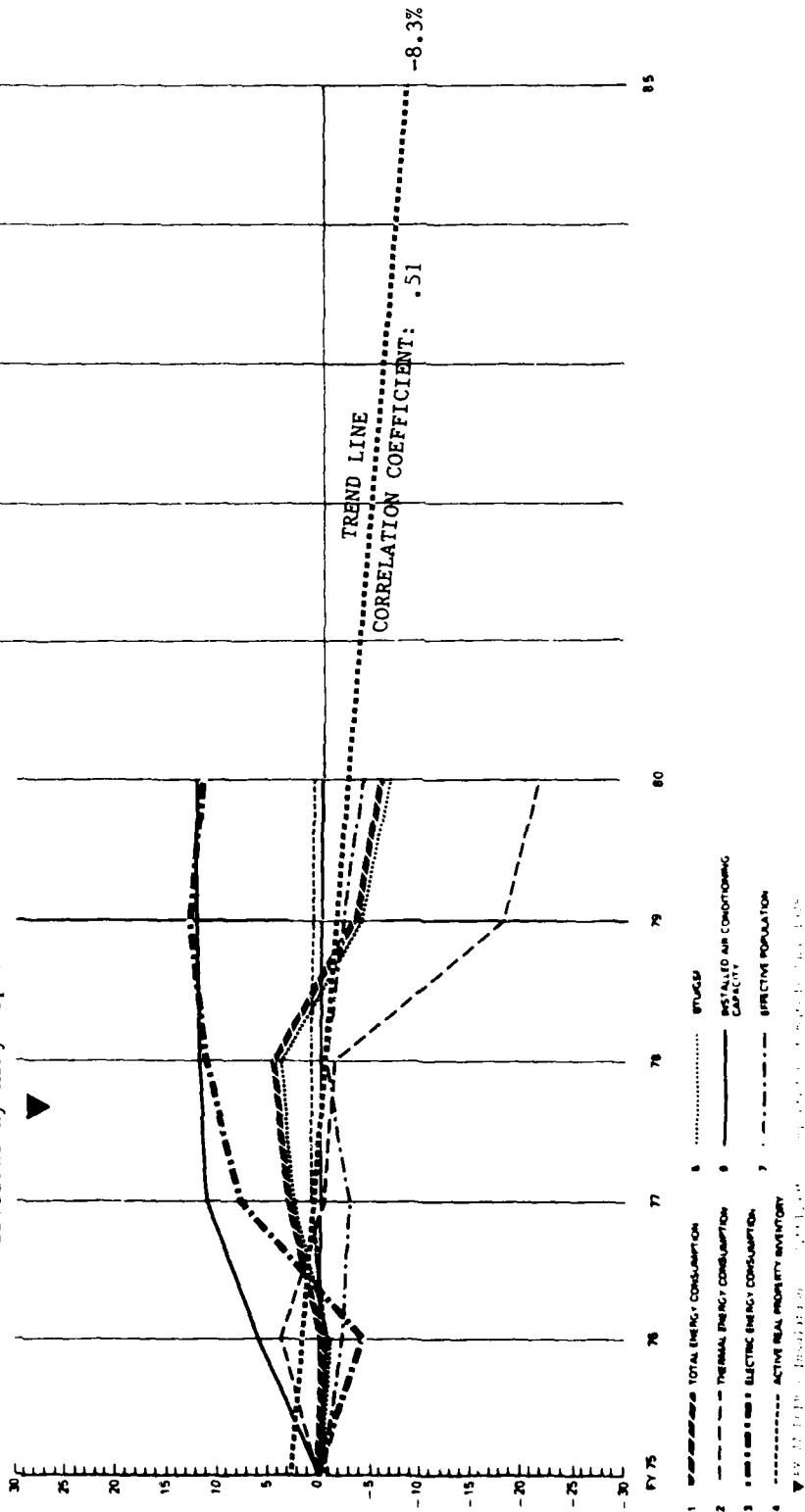
***Population Served is the Total Resident & Non-Resident Population

(1) Not Reported in FY 1975 - Use FY 1976 as Base Year

(2) Corpus Christie AD is Tenanted on a Navy Operated Installation

REMARKS

Letterkenny Army Depot



AD-A104 134

COMPUTER SCIENCES CORP FALLS CHURCH VA SYSTEMS DIV
ARMY ENERGY DATA ANALYSIS, FY 80 UPDATE.(U)
JUL 81

F/6 13/1

DE-AC01-79-CR-10001

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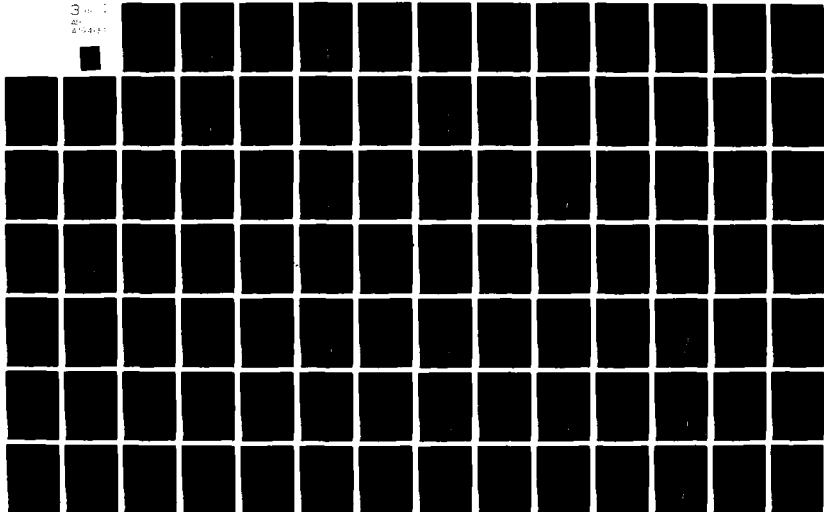
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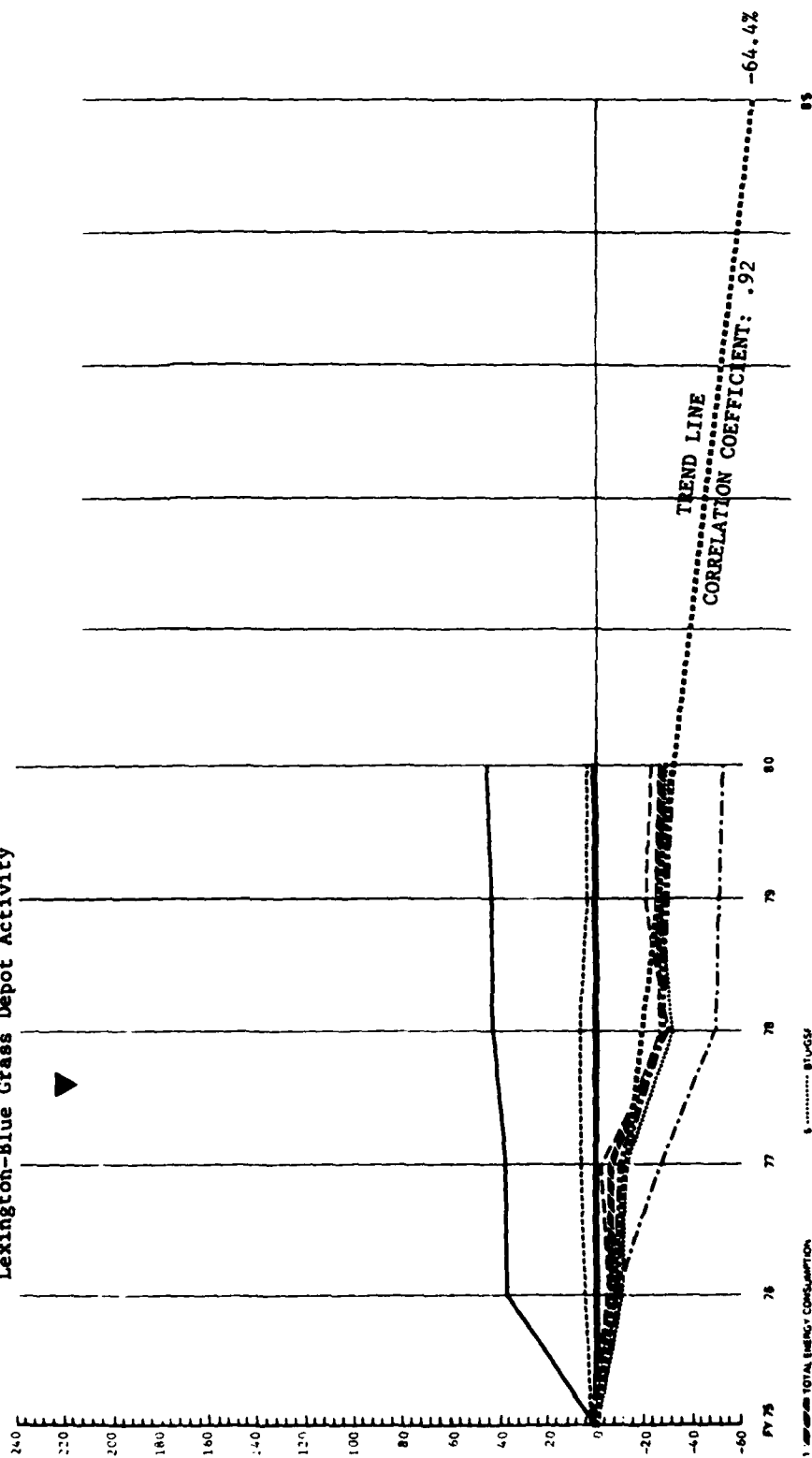
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION LETTERKINDY AD, PA MACOM DARGOM CLIMATIC REGION 2 HOD 5,519 CDD 753

UNIT/SPY	76	77	78	79	80
1 Energy Consumption to PD	996,001	1,011,375	1,042,362	962,837	917,186
2 Thermal En Cons to PD	527,881	546,065	571,771	475,277	414,325
3 Electrical En Cons to PD	468,120	465,310	470,591	487,560	502,861
4 Resident Population to PD	2,068	132	131	185	179
5 Non-Resident Population to PD	5,500	5,427	5,373	5,479	5,409
6 Population Served to PD	7,568	5,549	5,744	5,664	5,588
7 Effective Population to PD	2,068	2,001	2,069	2,011	1,982
8 En Consumption Served to PD	172,7	183,6	180,8	170,0	167,7
9 En Consumption to PD	483,3	515,4	508,7	478,8	472,8
10 Electric En Consumption to PD	2,250,6	2,432,2	2,728,6	2,862,5	2,919,9
11 Installed Air Cond Capacity to PD	2,205	2,450	2,471	2,471	2,471
12 Elec Energy/Ton of Air Cond to PD	212,3	206,3	210,9	214,3	211,5
13 Real Property Inventory (RPI) to PD	6,856	6,901	6,908	6,894	6,906
14 RPI/En Cons Ratio to PD	3,33	3,431	3,371	3,431	3,48
15 Energy Consumption/GSP to PD	165,274	169,453	150,889	139,663	135,208
16 Thermal En Consumption/GSP to PD	76,995	76,221	75,465	76,815	76,024
17 Electrical En Consumption/GSP to PD	88,279	93,232	75,424	62,848	59,184
18 RPI by Category					
Training	951	1,019	1,020	1,022	1,073
Maintenance & Production					
Research, Development & Testing					
Storage	4,918	2,104	2,111	2,111	2,131
Other Covered Storage		2,736	2,737	2,743	2,744
Hospital & Medical					
Administration	317	321	321	321	317
Residence Housing	7	6	6	11	11
Community Facilities	118	122	122	127	130
Family Housing	69	69	69	69	69
Operational Facilities	400	468	468	435	375
Utility Buildings	61	69	69	48	49
Other					

▼ FY 77 ECIP - Insulation - \$2,661,496 - Completed (estimated) June 1978

REMARKS

Lexington-Blue Grass Depot Activity



1 - TOTAL ENERGY CONSUMPTION
2 - THERMAL ENERGY CONSUMPTION
3 - ELECTRIC ENERGY CONSUMPTION
4 - EFFECTIVE POPULATION

▼ FY 76 ECIP - Insulation - \$479,015 - Completed May 1978

US Army	ANALYSIS OF ENERGY CONSUMPTION	INSTALLATION	EXTINCTION-BLUE GRASS DETECT, MACOM	DARCOM	CLIMATIC REGION	MOO 4,729 CDD 1,197

UNITARY	75	76	77	78	79	80
1 Energy Consumption & PD	555,216	570,700	515,004	595,061	410,913	393,278
2 Thermal En Conv. & PD	219,936	229,936	257,567	185,679	209,566	209,625
3 Electrical En Conv. & PD	285,503	219,936	257,567	185,679	209,566	209,625
4 Nonthermal Population & PD	288,771	219,936	257,567	185,679	209,566	209,625
5 Nonthermal Population & PD	85	85	85	85	85	85
6 Population Growth	3,968	3,567	2,780	1,846	1,784	1,416
7 Population Growth	4,031	3,552	2,865	1,932	1,869	1,404
8 En Consumption/Pop Served & PD	1,401	1,274	1,012	700	689	647
9 En Consumption/Pop Served & PD	1,377	1,274	1,012	700	689	647
10 En Consumption/Pop Served & PD	336.3	406.7	509.0	568.2	604.3	610.9
11 Installed Air Cond Capacity & PD	3,185.5	3,185.5	3,030.0	2,683.3	2,368.8	2,433.1
12 Electric En Conv. & PD	931	1,290	1,200	1,332	1,332	1,332
13 Total Energy/Pop & PD	310.1	209.9	157.2	157.2	151.2	162.1
14 Nonthermal Population	5,706	5,706	5,737	5,735	5,530	5,542
15 Energy Consumption/GSP & PD	3.86	4.48	5.67	8.10	8.13	8.37
16 Thermal En Consumption/GSP & PD	102,662	91,281	89,785	68,886	74,306	71,324
17 Electrical En Consumption/GSP & PD	53,275	45,818	44,892	32,376	37,896	36,562
18 Nonthermal En Consumption/GSP & PD	11,586	11,586	11,586	11,586	11,586	11,586
19 Total En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
20 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
21 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
22 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
23 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
24 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
25 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
26 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
27 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
28 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
29 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
30 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
31 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
32 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
33 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
34 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
35 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
36 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
37 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
38 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
39 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
40 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
41 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
42 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
43 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
44 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
45 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
46 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
47 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
48 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
49 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
50 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
51 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
52 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
53 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
54 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
55 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
56 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
57 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
58 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
59 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
60 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
61 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
62 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
63 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
64 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
65 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
66 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
67 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
68 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
69 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
70 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
71 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
72 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
73 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
74 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
75 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
76 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
77 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
78 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
79 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
80 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
81 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
82 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
83 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
84 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
85 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
86 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
87 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
88 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
89 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
90 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
91 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
92 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
93 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
94 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
95 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
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97 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
98 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
99 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
100 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
101 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
102 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
103 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
104 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
105 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
106 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
107 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
108 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
109 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
110 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
111 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
112 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
113 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
114 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
115 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
116 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
117 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
118 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
119 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
120 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
121 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
122 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
123 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
124 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
125 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
126 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
127 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
128 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
129 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
130 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
131 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
132 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
133 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
134 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
135 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
136 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
137 En Consumption/GSP & PD	167,523	148,685	146,263	112,848	123,788	119,472
138 En Consumption/GSP & PD						

...and the 1/3 Non-Student

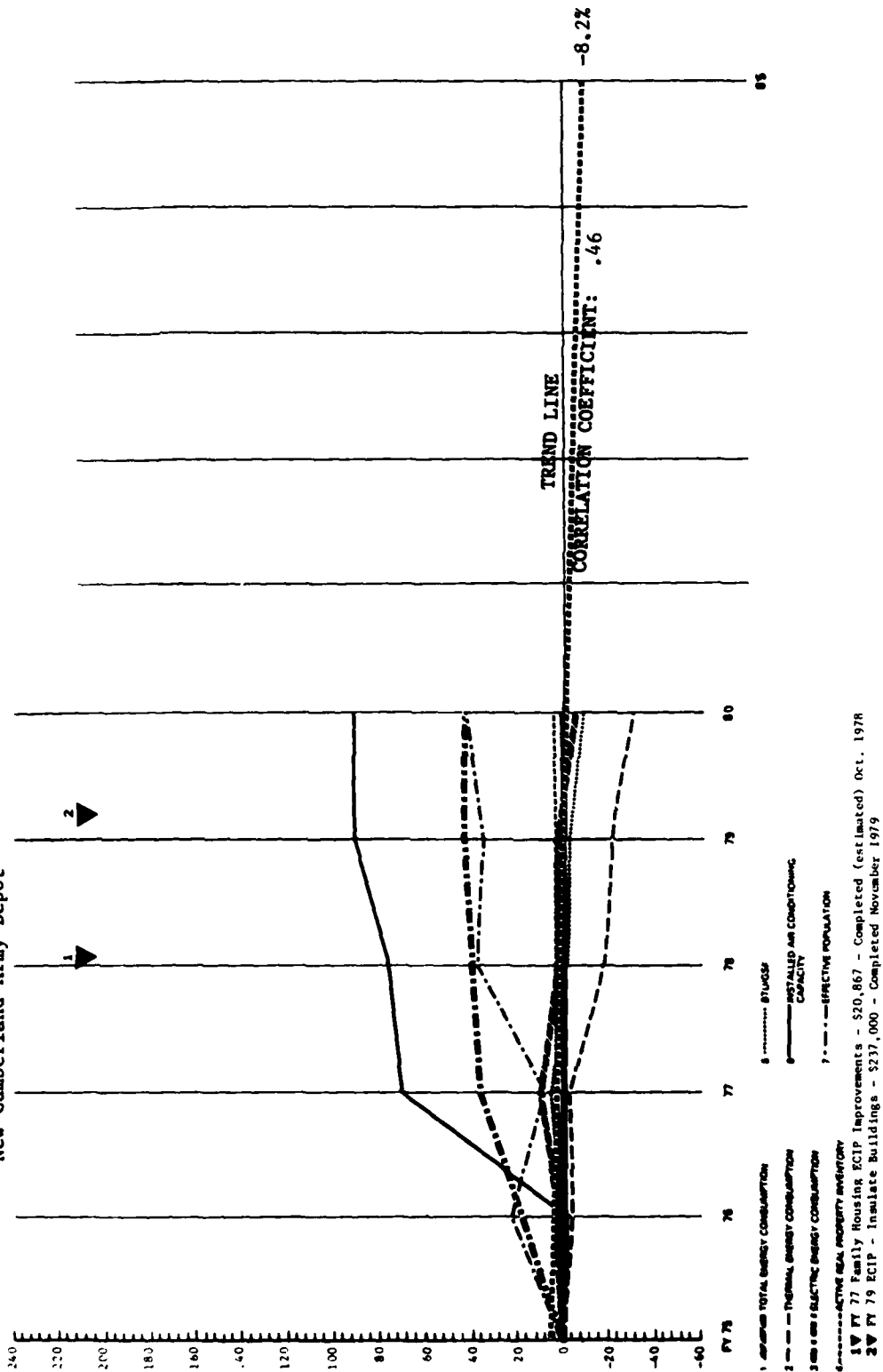
NAME	AGE	RESIDENCE
WILLIAM J. BROWN	35	1234 Main St., New York, N.Y.
JOHN D. SMITH	42	5678 Elm St., Chicago, Ill.
MARY E. JONES	28	9101 Oak St., Los Angeles, Calif.
ROBERT L. GARCIA	31	2345 Pine St., Houston, Tex.
SARAH K. MILLER	39	6789 Birch St., Philadelphia, Pa.
DAVID M. WILSON	45	1011 Cedar St., San Francisco, Calif.
ELIZABETH A. ROSS	33	1212 Maple St., Boston, Mass.
THOMAS H. ANDERSON	48	1313 Spruce St., Portland, Me.
JANE F. THOMPSON	37	1414 Fir St., Seattle, Wash.
CHARLES R. HARRIS	52	1515 Ash St., Denver, Colo.
MICHAEL S. LEE	29	1616 Willow St., Salt Lake City, Utah
BARBARA J. WHITE	34	1717 Hickory St., Albuquerque, N.M.
JOSEPH E. KING	41	1818 Cypress St., Las Vegas, Nev.
LUCAS M. BAKER	36	1919 Sycamore St., Phoenix, Ariz.
ANGELA D. NELSON	30	2020 Dogwood St., San Antonio, Tex.
FRANK J. MARTIN	44	2121 Magnolia St., Austin, Tex.
HELEN K. PERKINS	38	2222 Palm St., Miami, Fla.
WALTER R. SCOTT	50	2323 Peach St., Jacksonville, Fla.
JOAN M. GREEN	32	2424 Apple St., Orlando, Fla.
EDWARD L. ADAMS	46	2525 Cherry St., Tampa, Fla.
JOYCE A. HENRY	27	2626 Lemon St., Fort Lauderdale, Fla.
ALFRED S. COOK	55	2727 Orange St., Tallahassee, Fla.
BEATRICE J. FOSTER	35	2828 Grape St., Panama City, Fla.
GEORGE W. BARNES	43	2929 Pear St., Pensacola, Fla.
IRIS M. DAVIS	31	3030 Plum St., Mobile, Ala.
LEONARD K. HAYES	47	3131 Peach St., Montgomery, Ala.
MARGARET A. STEVENSON	33	3232 Apple St., Birmingham, Ala.
WILLIAM F. TOLSON	51	3333 Cherry St., Nashville, Tenn.
JOHN A. WATSON	40	3434 Lemon St., Knoxville, Tenn.
MARY L. BRIDGES	29	3535 Orange St., Chattanooga, Tenn.
ROBERT E. FLEMING	37	3636 Peach St., Memphis, Tenn.
SARAH J. HARRIS	34	3737 Apple St., Louisville, Ky.
THOMAS M. JONES	42	3838 Cherry St., Cincinnati, Ohio
ELIZABETH K. MILLER	30	3939 Lemon St., Cleveland, Ohio
FRANK J. NELSON	45	4040 Orange St., Columbus, Ohio
JOAN M. PERKINS	32	4141 Peach St., Dayton, Ohio
ALFRED S. ROSS	48	4242 Apple St., Toledo, Ohio
BEATRICE J. SCOTT	36	4343 Cherry St., Detroit, Mich.
GEORGE W. STEVENSON	52	4444 Lemon St., Grand Rapids, Mich.
IRIS M. TOLSON	28	4545 Orange St., Lansing, Mich.
LEONARD K. WATSON	41	4646 Peach St., Flint, Mich.
MARGARET A. BRIDGES	33	4747 Apple St., Ann Arbor, Mich.
WILLIAM F. FLEMING	49	4848 Cherry St., Dearborn, Mich.
JOHN A. HARRIS	38	4949 Lemon St., Livonia, Mich.
MARY L. JONES	27	5050 Orange St., Warren, Mich.
ROBERT E. MILLER	35	5151 Peach St., Farmington Hills, Mich.
SARAH J. NELSON	31	5252 Apple St., Troy, Mich.
THOMAS M. PERKINS	43	5353 Cherry St., Westland, Mich.
ELIZABETH K. ROSS	29	5454 Lemon St., Farmington, Conn.
FRANK J. SCOTT	46	5555 Orange St., Meriden, Conn.
JOAN M. STEVENSON	32	5656 Peach St., Danbury, Conn.
ALFRED S. TOLSON	48	5757 Apple St., New Britain, Conn.
BEATRICE J. WATSON	36	5858 Cherry St., Middletown, Conn.
GEORGE W. BRIDGES	50	5959 Lemon St., West Hartford, Conn.
IRIS M. FLEMING	28	6060 Orange St., East Hartford, Conn.
LEONARD K. HARRIS	41	6161 Peach St., Bristol, Conn.
MARGARET A. JONES	33	6262 Apple St., Meriden, Conn.
WILLIAM F. MILLER	49	6363 Cherry St., Danbury, Conn.
JOHN A. NELSON	38	6464 Lemon St., New Britain, Conn.
MARY L. PERKINS	27	6565 Orange St., West Hartford, Conn.
ROBERT E. ROSS	35	6666 Peach St., East Hartford, Conn.
SARAH J. SCOTT	31	6767 Apple St., Bristol, Conn.
THOMAS M. STEVENSON	43	6868 Cherry St., Meriden, Conn.
ELIZABETH K. TOLSON	29	6969 Lemon St., Danbury, Conn.
FRANK J. WATSON	46	7070 Orange St., New Britain, Conn.
JOAN M. BRIDGES	32	7171 Peach St., West Hartford, Conn.
ALFRED S. FLEMING	48	7272 Apple St., East Hartford, Conn.
BEATRICE J. HARRIS	36	7373 Cherry St., Bristol, Conn.
GEORGE W. JONES	50	7474 Lemon St., Meriden, Conn.
IRIS M. MILLER	28	7575 Orange St., Danbury, Conn.
LEONARD K. NELSON	41	7676 Peach St., New Britain, Conn.
MARGARET A. PERKINS	33	7777 Apple St., West Hartford, Conn.
WILLIAM F. ROSS	49	7878 Cherry St., East Hartford, Conn.
JOHN A. SCOTT	38	7979 Lemon St., Bristol, Conn.
MARY L. STEVENSON	27	8080 Orange St., Meriden, Conn.
ROBERT E. TOLSON	35	8181 Peach St., Danbury, Conn.
SARAH J. WATSON	31	8282 Apple St., New Britain, Conn.
THOMAS M. BRIDGES	43	8383 Cherry St., West Hartford, Conn.
ELIZABETH K. FLEMING	29	8484 Lemon St., East Hartford, Conn.
FRANK J. HARRIS	46	8585 Orange St., Bristol, Conn.
JOAN M. JONES	32	8686 Peach St., Meriden, Conn.
ALFRED S. MILLER	48	8787 Apple St., Danbury, Conn.
BEATRICE J. NELSON	36	8888 Cherry St., New Britain, Conn.
GEORGE W. PERKINS	50	8989 Lemon St., West Hartford, Conn.
IRIS M. ROSS	28	9090 Orange St., East Hartford, Conn.
LEONARD K. SCOTT	41	9191 Peach St., Bristol, Conn.
MARGARET A. STEVENSON	33	9292 Apple St., Meriden, Conn.
WILLIAM F. TOLSON	49	9393 Cherry St., Danbury, Conn.
JOHN A. WATSON	38	9494 Lemon St., New Britain, Conn.
MARY L. BRIDGES	27	9595 Orange St., West Hartford, Conn.
ROBERT E. FLEMING	35	

1

FFY 76 ECIP - Insulation - \$979,035 - Completed May 1978

THE MESSAGE

New Cumberland Army Depot



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION NIEL CUMBERLAND AD - PA MACOM DARGOM CLIMATIC REGION 3 HDD 5,224 CDD 1,025

UNITARY	75	76	77	78	79	80
1 Energy Consumption & PD	865,155	896,266	958,504	889,719	870,314	812,227
2 Thermal En Cons & PD	562,131	527,760	566,768	462,405	435,167	381,225
3 Electrical En Cons & PD	302,816	328,206	412,156	426,834	435,167	428,502
4 Resident Population & PD	401	392	391	329	387	389
5 Non-Resident Population & PD	5,345	5,846	5,041	6,394	6,310	6,991
6 Population Served** & PD	5,345	6,245	5,432	6,927	6,917	7,380
7 Effective Population*** & PD	1,916	2,368	2,071	2,662	2,564	2,719
8 En Consumption/Pop Served & PD	174.9	143.5	176.5	128.4	125.8	110.1
9 En Consumption/Pop Served & PD	531.5	381.7	462.8	336.0	339.4	298.9
10 Electric En Consumption/Resident Population	255.1	898.5	1,054.3	806.9	1,124.5	1,104.1
11 Available Air Cond Capacity & PD	789	780	1,343	1,388	1,498	1,498
12 Elec Energy/Pop Served & PD	383.8	459.6	306.9	307.5	290.5	286.7
13 Road Property Inventory BPA & PD	5,319	5,346	5,515	5,513	5,512	5,512
14 Road Property Inventory BPA & PD	2,278	2,228	2,661	2,071	2,135	2,031
15 Energy Consumption/GSF & PD	162,654	167,652	173,799	161,299	157,898	167,313
16 Thermal En Consumption/GSF & PD	105,725	100,591	99,066	83,875	78,949	69,463
17 Electrical En Consumption/GSF & PD	56,929	67,061	74,733	77,423	78,949	77,851
18 WPI Capacity	3	3	3	3	3	3
Training	602	598	600	601	572	576
Administrative & Population	12	12	12	12	12	12
Research, Development & Training	3,880	3,861	3,984	3,982	4,009	4,000
Storage	7	7	7	7	7	7
Other Covered Storage	355	350	353	353	353	361
Hospital & Medical	81	83	83	83	83	83
Administrative	158	159	159	158	159	160
Residence Housing	204	204	204	204	204	204
Community Facilities	7	61	101	101	101	101
Family Housing	8	8	8	8	8	8
Quartermaster Bldg	8	8	8	8	8	8
Utility Building	8	8	8	8	8	8
Other	8	8	8	8	8	8

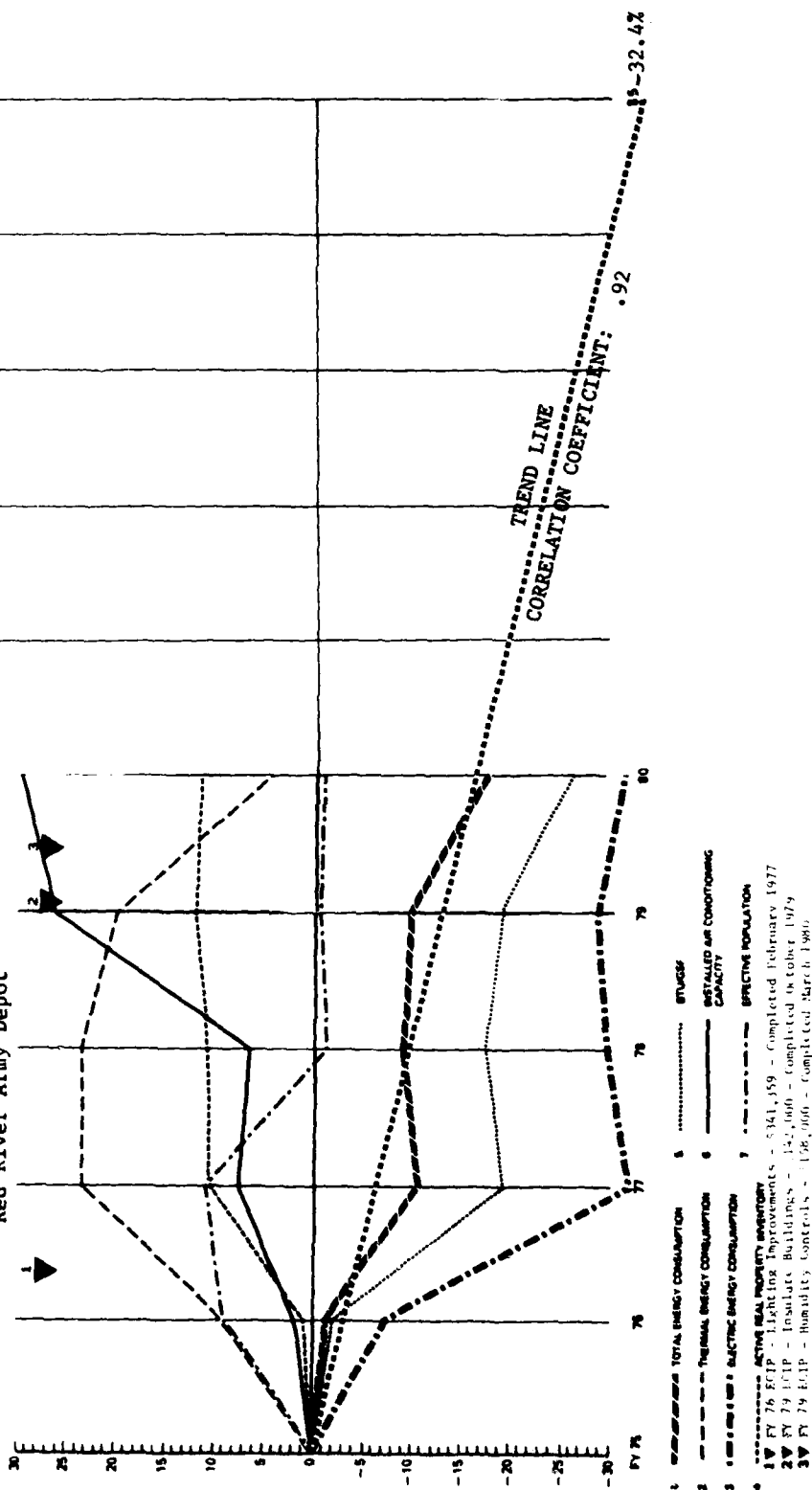
PD is Percentage Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *Eff Pop is Resident + 1/2 Non-Resident

1 FY 77 Family Housing ECIP Improvements - \$20,867 - Completed (estimated) October 1978

2 FY 79 ECIP - Insulate Buildings - \$237,000 - Completed November 1979

REMARKS

Red River Army Depot



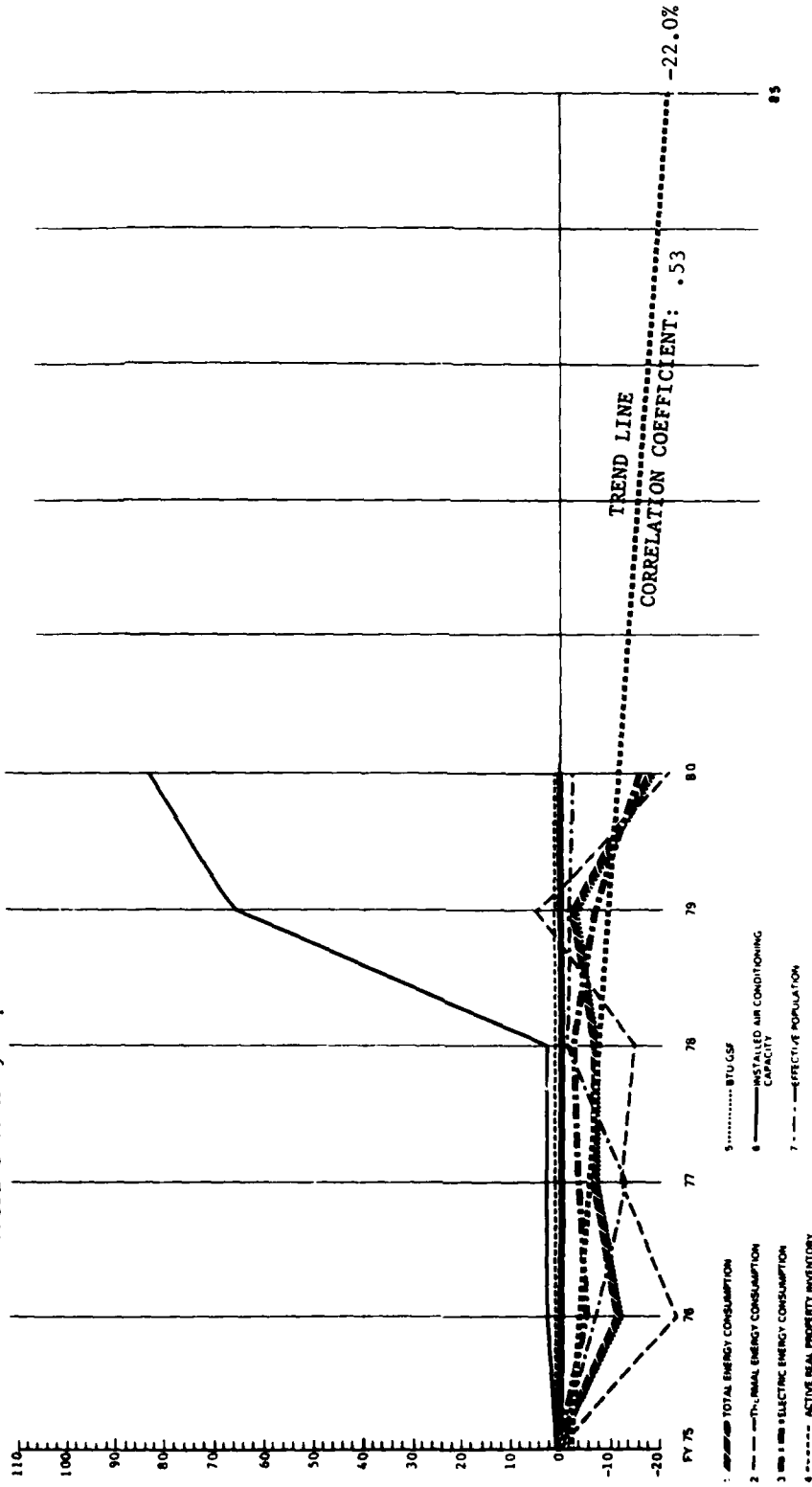
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - RED RIVER ARMY DEPOT, TX - MACOM, DARGOM - CLIMATIC REGION 7 - MOD 2, 531 - CDO 2, 245

UNITARY	76	77	78	79	80
1 Energy Consumption to PD	1,102,839	982,110	1,001,789	995,232	902,220
2 Thermal En. Cons. to PD	469,059	531,431	532,009	517,521	462,825
3 Electrical En. Cons. to PD	621,775	452,699	471,780	477,711	439,395
4 Heating Population to PD	292	415	282	291	218
5 Non-Resident Population to PD	5,576	5,864	5,589	5,330	5,624
6 Population Served** to PD	5,808	6,163	5,811	5,541	5,824
7 Effective Population*** to PD	2,131	2,324	2,105	2,141	2,109
8 En. Consumption/Person to PD	189.9	177.6	172.1	170.4	158.9
9 En. Consumption/Person to PD	517.5	469.4	476.9	462.8	430.2
10 Heating En. Consumption/Person to PD	2,103.9	1,106.8	1,949.5	1,631.6	2,107.3
11 Heating En. Consumption/Person to PD	2,246	2,417	2,389	2,437	2,421
12 Elec. Energy/Person to PD	229.5	187.3	197.5	188.4	171.3
13 Heat Property Inventory WSP to PD	6,436	7,125	7,176	7,206	7,168
14 Heating Population	3,02	3,03	3,39	3,37	3,40
15 En. Consumption/GSF to PD	121,355	138,124	140,863	138,112	126,565
16 Thermal En. Consumption/GSF to PD	66,829	74,196	74,657	71,818	62,476
17 Electrical En. Consumption/GSF to PD	104,526	63,928	66,206	66,294	64,090
18 Heat Property Inventory WSP to PD	40	39	38	43	55
Training	1,149	1,171	1,181	1,196	1,198
Research & Production					
Research, Development & Testing					
Storage	4,101	3,776	3,775	3,768	3,768
Other General Storage					
Insulated & Modified					
Administration	6	6	6	6	6
Residential Heating	238	245	245	250	235
Community Heating	12	12	12	12	12
Community Fire Heat	93	96	97	105	116
Family Housing	78	117	117	110	110
Operational Use Storage	685	693	692	708	711
Utility Buildings	32	55	72	70	73
Other					

**PD to Percent Conversion from Base Year **Population Served in the total Resident & Non-Resident Population

11 FY 76 ECIP - Lighting Improvements - \$341,359 - Completed February 1977
 21 FY 79 ECIP - Insulate Buildings - \$142,000 - Completed October 1979
 31 FY 79 ECIP - Humidity Controls - \$158,000 - Completed March 1980

Sacramento Army Depot



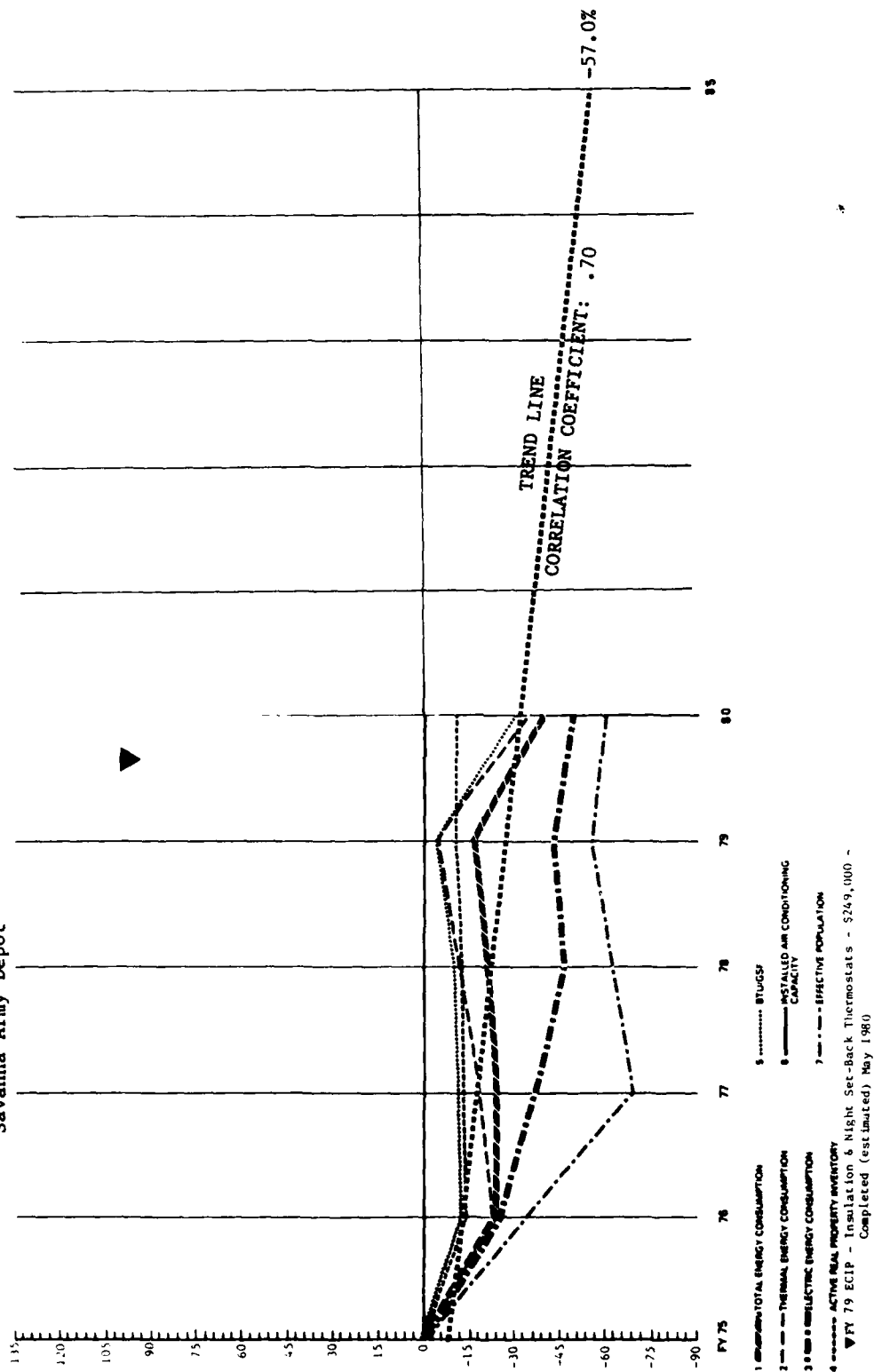
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION SACRAMENTO ARMY DETOT. CA. MACOM DABCOM CLIMATIC REGION 4 HDD 2,843 CDD 1,159

UNITS/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	192,325	343,693	412,411	365,290	379,573	320,147
2 Thermal En Cons & PD	161,237	106,565	124,611	124,199	148,034	109,375
3 Electrical En Cons & PD	251,088	237,128	287,800	241,091	231,539	210,772
4 Resident Population & PD	27	30	11,311	32	28	28
5 Non Resident Population & PD	2,914	2,676	1,821	2,488	2,819	2,819
6 Population Served** & PD	2,941	2,706	1,821	2,520	2,847	2,867
7 Effective Population*** & PD	998	922	1,776	861	968	968
8 En Consumption/Pop Served & PD	133.4	127.0	145.0	145.0	133.3	112.5
9 En Consumption/Pop Served & PD	393.1	372.8	452.1	424.3	392.1	330.7
10 Electric En Consumption/Resident Population	9,299.6	7,904.9	15,011	7,534.1	8,269.3	7,527.6
11 Installed Air Cond Capacity & PD	612	628	2,611	628	1,010	1,117
12 Heat Energy/Ton of Air Cond & PD	410.3	372.6	1,840.1	383.9	229.2	188.7
13 Heat Property Inventory Btu's & PD	2,824	2,838	1,051	2,839	2,839	2,839
14 HPI/Resident Population	2.83	3.08	1.81	3,301.16	2,931	2,931
15 Energy Consumption/GSF & PD	118,975	121,104	124,811	128,714	133,700	112,768
16 Thermal En Consumption/GSF & PD	50,011	37,542	124,911	43,763	52,163	38,526
17 Electrical En Consumption/GSF & PD	68,964	83,562	124,901	84,951	81,537	74,242
18 Btu's by Category						
Training	68	68	68	68	66	66
Maintenance & Production	284	284	302	302	302	302
Research, Development & Testing	-	-	-	-	-	-
Storage	2,123	2,134	BASE	1,847	2,102	2,102
Other General Storage	7	7	7	7	7	7
Repaired & Medical	184	184	185	191	191	191
Administration	39	39	39	39	39	39
Bachelor Housing	56	56	317	56	55	55
Community Fee Area	19	19	19	19	19	19
Family Housing	34	34	37	38	37	37
Operational Bldg	6	6	16	16	16	16
Utility Buildings	6	6	16	16	16	16
Other	BASE	BASE	BASE	BASE	BASE	BASE

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *Eff Pop is Resident + 1/2 Non-Resident

REMARKS

Savanna Army Depot



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION SAVANNAH ARMY DEPOT, ILL. MACOM DABCOH CLIMATIC REGION 2 HDD-534 COO 741

UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption to PD	251,662	132,292	184,666	123,511	100,194	167,826
2 Thermal En Cons to PD	173,000	127,298	121,215	116,111	151,356	112,550
3 Electrical En Cons to PD	70,661	51,201	63,451	7,400	48,838	55,276
4 Resident Population to PD	380	212	42	189.2	71	97
5 Non Resident Population to PD	798	864	473	141.0	522	571
6 Population Served** to PD	1,178	1,076	515	156.2	593	668
7 Effective Population*** to PD	656	413	190	160.7	245	287
8 En Consumption/Pop Served to PD	2,05.1	2,08.9	1,65.5	1,77.2	2,20.7	2,35.8
9 En Consumption/Pop to PD	3,11.4	3,22.6	3,52.3	3,52.3	3,76.3	3,52.5
10 Electric En Consumption/Resident Population	1,81.2	2,50.3	1,065.5	1,488.1	535.8	424.4
11 Invalidated Air Cond Capacity to PD	465	465	665	1.0	665	465
12 Electric En Consumption/Resident Population	1,52.0	1,14.1	1,24.9	1,24.9	1,81.8	1,46.2
13 Electric En Consumption/Resident Population	5,41.8	3,41.8	3,835	4,13.4	3,852	3,914
14 Electric En Consumption/Resident Population	55,028	47,923	48,622	4,11.6	49,376	52,385
15 Thermal En Consumption/Resident Population	39,020	35,015	36,953	5,54.1	39,501	42,068
16 Thermal En Consumption/Resident Population	3,358	3,808	11,669	1,26.9	9,875	10,516
17 Electrical En Consumption/Resident Population	1,561	1,561	1,561	1,561	1,561	1,561
18 All by Category						
Training	164	164	164	164	164	164
Maintenance & Protection	146	146	146	146	146	146
Research, Development & Testing	11	11	11	11	11	11
Storage	1,861	1,861	1,861	1,861	1,861	1,861
Other Covered Storage	1,861	1,861	1,861	1,861	1,861	1,861
Hospital & Medical Administration	11.1	11.1	11.1	11.1	11.1	11.1
Biological Housing	60	60	60	60	60	60
Community Fire Area	7.0	7.0	7.0	7.0	7.0	7.0
Family Housing	7.7	7.7	7.7	7.7	7.7	7.7
Operational Bus Stop	9	9	9	9	9	9
Unit Buildings	2.5	2.5	2.5	2.5	2.5	2.5
Other						

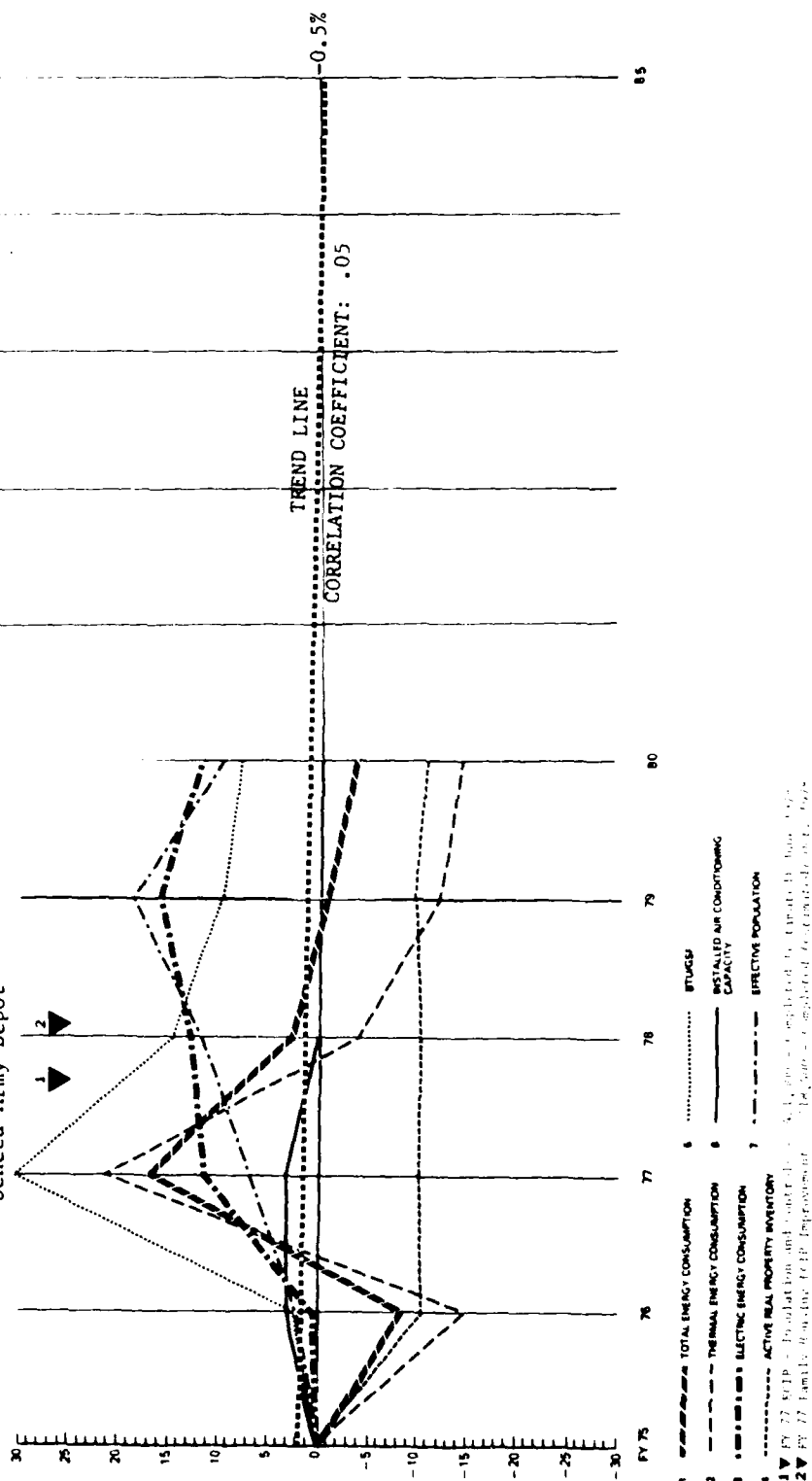
**Population Served in the total Resident & Non Resident Population

***Pop to Resident + 1/2 Non-Resident

▼ FY 79 EETP - Insulation & Night Set-Back Thermostats - \$249,000 - Completed (estimated) May 1980

REMARKS

Seneca Army Depot



Unit/Category	76	77	78	79	80
1 Energy Consumption by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
2 Thermal En. Cons. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
3 Electric En. Cons. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
4 Resident Population by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
5 Non-Resident Population by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
6 Population Density by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
7 Effective Population by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
8 En. Consumption/Pop. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
9 En. Consumption/Pop. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
10 Electric En. Consumption/Pop. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
11 Installed Air Cond. Capacity by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
12 Electric Energy/ton of Air Cond. by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
13 Real Property Inventory (RPI) by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
14 RPI/Effective Population	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
15 Energy Consumption/GSF by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
16 Thermal En. Consumption/GSF by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
17 Electrical En. Consumption/GSF by PD	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
18 RPI by Category	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Training	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Maintenance & Production	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Research, Development & Testing	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Storage	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Other General Storage	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Hospital & Medical	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Administration	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Recreation	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Community Facilities	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Family Housing	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Operational Buildings	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777
Other	1,055,777	1,055,777	1,055,777	1,055,777	1,055,777

**Pop. by Category

**Pop. by PD

**Pop. by PD

**Pop. by PD

**Pop. by PD

10 FY 77 ECIP - Insulation and Controls - 5621,000 - Completed (estimated) June 1978

20 FY 77 Family Housing ECIP Improvements - 518,500 - Completed (estimated) October 1978

▶



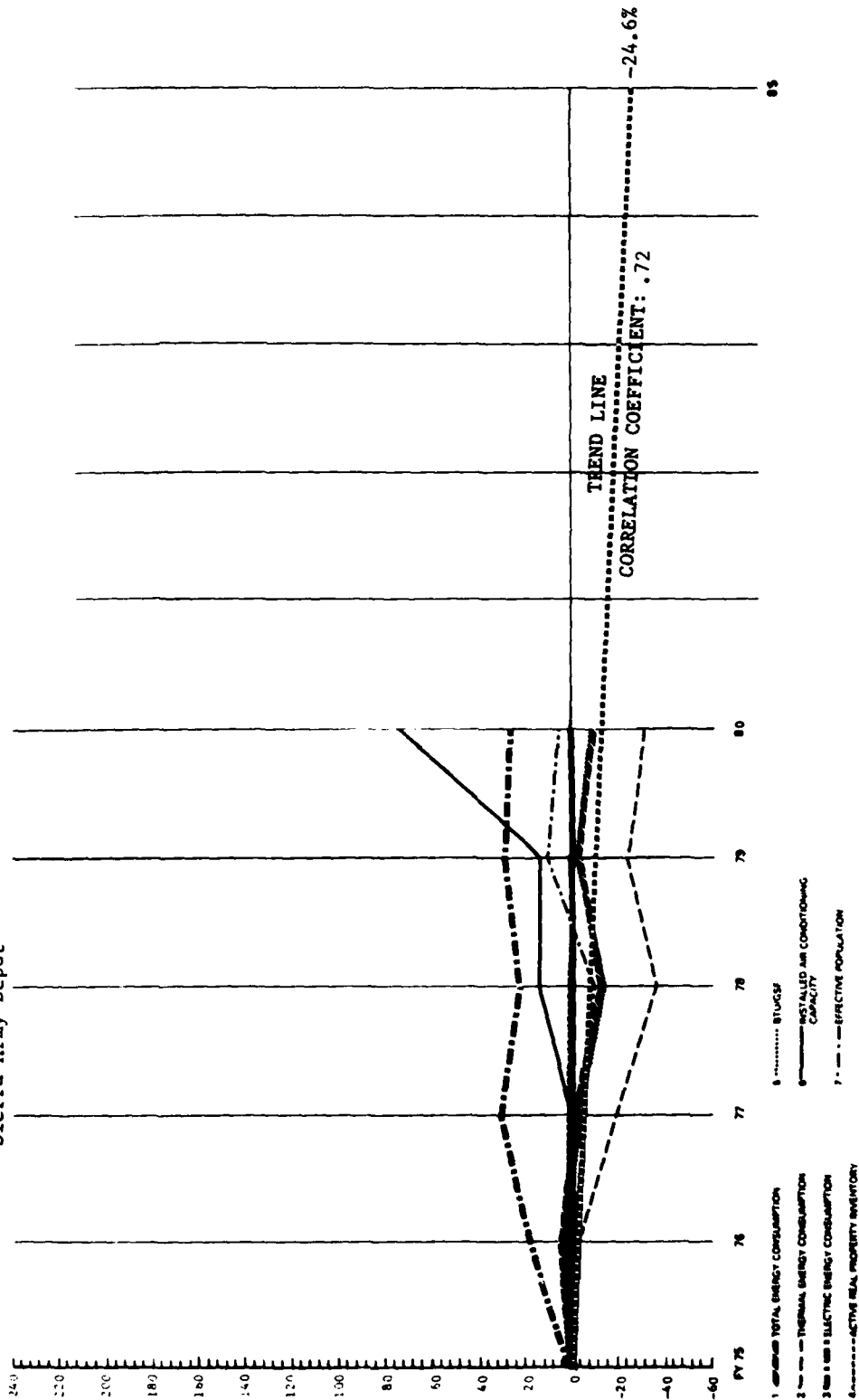
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - SHARPE ARMY DEPOT, CA - MACOM - DADCOM - CLIMATIC REGION 4 - HDD 2,806 CDD 1,259

UNITARY	75	76	77	78	79	80	81
1 Energy Consumption & PD	133,724.1	135,862	121,982	121,982	121,982	121,982	121,982
2 Thermal En Cons & PD	40,123	40,123	32,916	32,916	32,916	32,916	32,916
3 Electrical En Cons & PD	93,601	95,739	89,066	89,066	89,066	89,066	89,066
4 Resident Population & PD	122	122	114	114	114	114	114
5 Non-Resident Population & PD	1,891	1,891	1,617	1,617	1,617	1,617	1,617
6 Population Surveys & PD	2,015	1,968	1,731	1,731	1,731	1,731	1,731
7 Effective Population*** & PD	253	253	253	253	253	253	253
8 En Consumption/Pop Served & PD	66.4	66.4	70.5	70.5	70.5	70.5	70.5
9 En Consumption/Pop & PD	177.6	186.1	186.8	186.8	186.8	186.8	186.8
10 Electric En Consumption/Pop & PD	261.4	273.2	281.1	281.1	281.1	281.1	281.1
11 Installed Air Cond Capacity & PD	303	410	418	418	418	418	418
12 Elec Energy/Ton of Air Cond & PD	3,102.0	3,102.0	3,128.0	3,128.0	3,128.0	3,128.0	3,128.0
13 Heat Property Inventory BHP & PD	1,164	1,164	1,164	1,164	1,164	1,164	1,164
14 HPH/Inch Population	4.20	4.20	4.79	4.79	4.79	4.79	4.79
15 Energy Consumption/GSF & PD	42,270	42,913	38,997	38,997	38,997	38,997	38,997
16 Thermal En Consumption/GSF & PD	12,651	12,874	10,529	10,529	10,529	10,529	10,529
17 Electrical En Consumption/GSF & PD	29,619	30,039	28,468	28,468	28,468	28,468	28,468
18 BHP by Category							
Training	378	378	300	300	300	300	300
Maintenance & Production							
Research, Development & Testing							
Storage	2,466	2,466					
Other Command Storage							
Headquarters & Logistics							
Administration							
Bachelor Housing							
Community Facilities							
Family Housing							
Operational Bar Area							
Utility Buildings							
Other							

▼ FY 77 ECIP - Insulation and Heating System Improvements - \$186,998 - Completed (estimated) June 1978

REMARKS

Sierra Army Depot



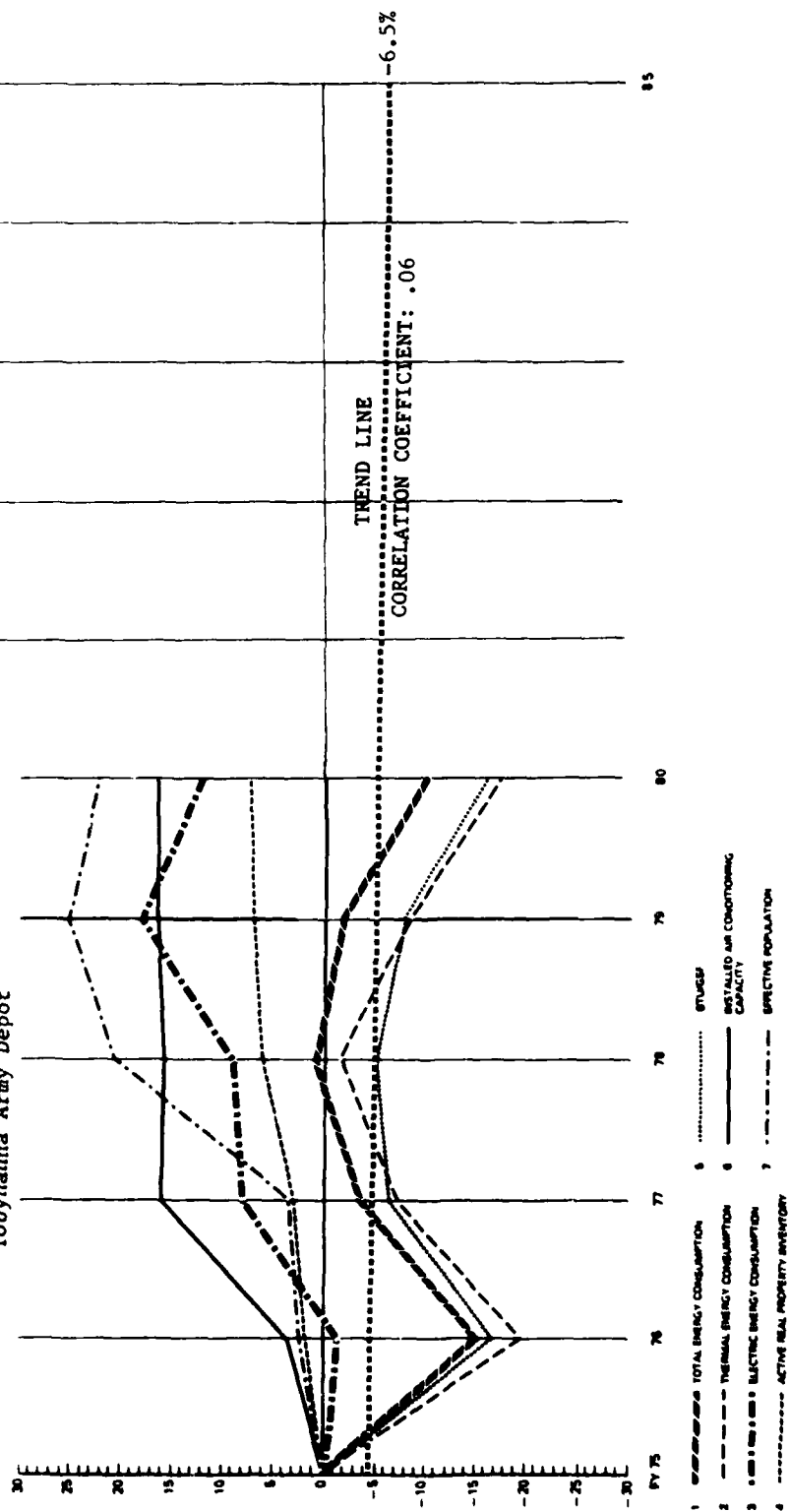
U S Army ANAL

UNITARY	75	76	77	78	79	80
ARTU	223,452	236,614	255,502	19,688	212,624	200,027
ARTU	118,541	133,770	111,101	86,278	104,189	1-10,51
ARTU	84,911	100,886	111,101	107,630	108,440	1-32,61
PEOPLE	880	812	926	779	967	1-25,61
PEOPLE	527	522	499	530	592	816
PEOPLE	1,056	1,384	1,325	1,309	1,559	586
PEOPLE	1,026	1,061	995	956	1,164	1,512
ARTICUP	158,8	169,5	167,7	166,6	136,4	1,115
ARTICUP	211,6	224,9	224,0	200,7	182,7	1,32,3
ARTICUP	96,5	113,7	134,5	131,0	112,1	179,4
TONS	200	200	1	228	228	116,4
INSTITUTION	424,6	504,4	555,6	454,5	475,6	368
RSF	4,978	5,085	5,013	6,999	4,971	106,4
RSF	4,71	4,88	5,05	5,23	4,77	4,978
BTUGS	44,888	46,138	46,325	38,389	42,774	6,46
BTUGS	27,821	26,298	22,163	17,659	20,959	1-5,31
BTUGS	17,037	19,819	22,162	20,730	21,815	18,182
RSF	11	9	11	11	11	1-12,61
RSF	248	257	259	259	259	21,620
RSF	-	-	-	-	-	11
RSF	4,221	4,242	1,951	1,951	1,951	259
RSF	Base	Base	2,255	2,255	2,247	1,951
RSF	18	38	39	39	25	2,247
RSF	95	93	87	87	82	25
RSF	60	61	84	84	82	82
RSF	128	126	122	123	123	82
RSF	102	111	130	130	130	130
RSF	54	56	54	39	39	47
RSF	17	21	21	21	20	21
RSF	Base	Base	2	2	2	21
RSF	Base	Base	2	2	2	21

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5/26/1925

Tobyhanna Army Depot



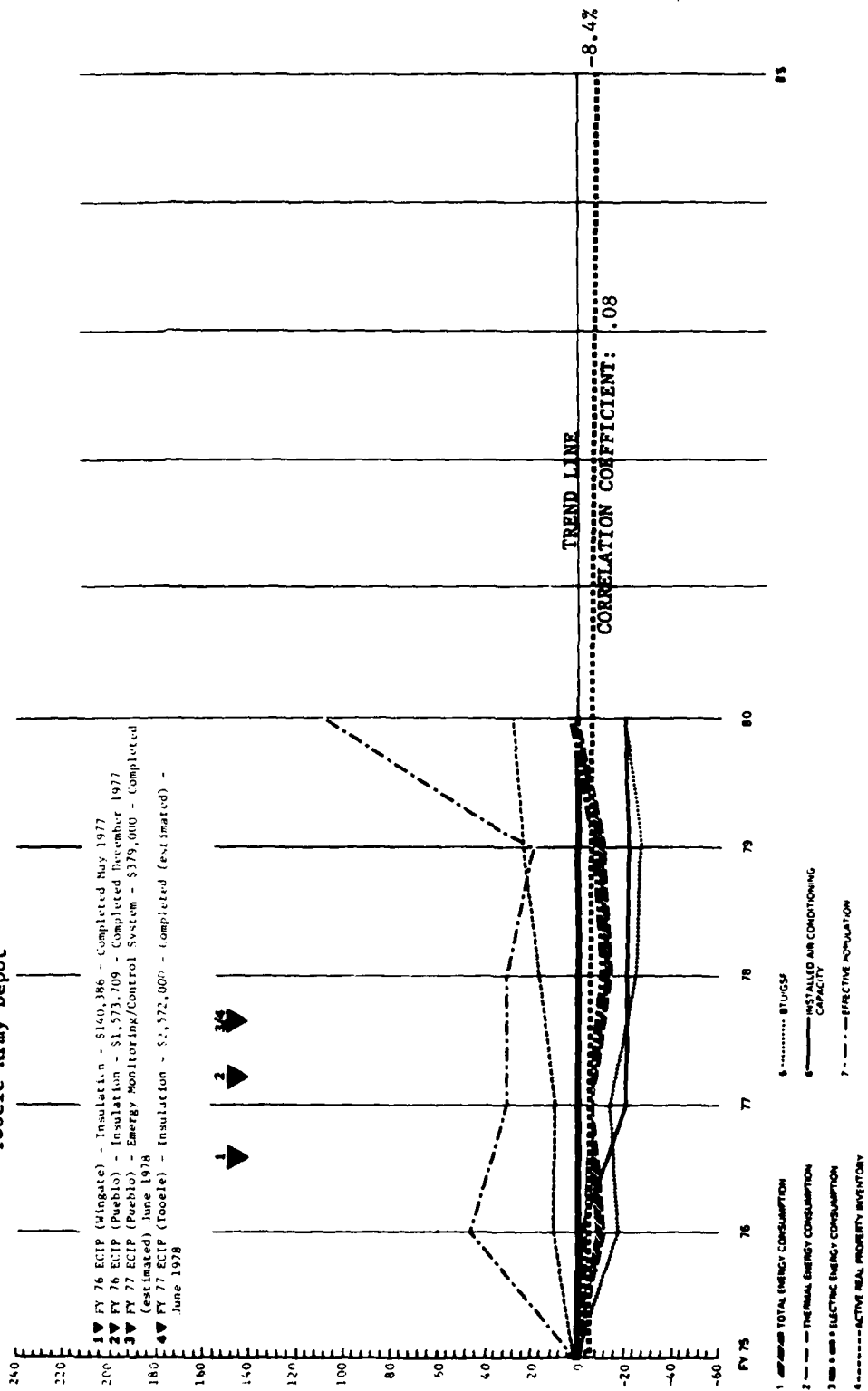
U.S. ARMY ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - FORNWARNS ARLS DETROIT DA MACOM DARGEN CLIMATIC REGION 2 HOD 6316 CDD 434

UNIT/STY	%	W	77	W	W	W	W	W	
1 Energy Consumption & PD	822.101	697.016	1-15.21	793.074	1-1.01	830.126	1-1.01	718.435	1-10.21
2 Thermal En. Cons. & PD	616.726	494.895	1-19.81	571.074	1-1.71	606.000	1-1.71	583.997	1-8.51
3 Electrical En. Cons. & PD	205.525	202.139	1-1.21	222.060	1-8.01	224.136	1-9.01	251.713	142.11
4 Resident Population & PD	114	167	1-28.01	109	1-4.61	253	1121.91	276	1442.11
5 Non-Resident Population & PD	3.443	3.439	1-0.11	3.583	1-3.91	3.821	1-10.61	3.921	113.21
6 Population Storage*** & PD	1.561	3.386	1-0.41	1.494	1-3.21	4.074	1-16.11	4.197	112.81
7 Effective Population**** & PD	1.264	2.997	1-2.31	1.594	1-3.21	1.527	1-20.81	1.581	125.21
8 En. Consumption/Pop. Served & PD	230.8	196.4	1-15.41	214.7	1-7.01	503.8	1-11.71	192.0	1-16.81
9 En. Consumption/Pop. & PD	650.6	519.1	1-17.41	609.2	1-6.51	551.6	1-16.41	592.0	1-21.01
10 Electrical En. Consumption/Resident Population	1.803.3	1.175.1	1-21.71	2.027.2	113.01	885.3	1-50.91	875.8	1-51.41
11 Installed Air Cond Capacity & PD	806	834	1-3.71	933	116.01	932	115.91	918	116.41
12 Elec. Energy/Ton of Air Cond & PD	255.2	242.4	1-5.21	2.8.0	1-6.91	240.5	1-5.91	258.2	11.01
13 Real Property Inventory WPM & PD	3.456	3.215	1-1.71	3.566	111.71	3.671	1-6.21	3.698	11.01
14 Energy/Residence	2.73	2.72	1-0.41	2.73	10.01	2.40	1-12.41	2.74	1-16.61
15 Energy Consumption/GSF & PD	237.934	198.102	1-16.71	222.521	1-6.51	226.113	1-5.01	217.877	1-8.41
16 Thermal En. Consumption/GSF & PD	128.453	140.795	1-21.11	160.217	1-10.21	165.072	1-7.51	152.514	1-16.51
17 Electrical En. Consumption/GSF & PD	19.483	52.307	1-3.31	62.306	14.71	61.026	1-2.61	55.353	1-9.91
18 RPT for Category	7	7		7		7		7	
Training	528	566		552		668		670	
Maintenance & Production	20	20		21		21		21	
Research, Development & Testing	2.421	2.445		2.192		2.352		2.352	
Storage	12	12		12		12		12	
Other Command Storage	191	193		196		197		197	
Hospital & Medical	61	61		61		61		61	
Recreation Housing	136	136		138		133		133	
Community For Rent	5	5		5		5		5	
Family Housing	57	49		57		57		57	
Operational Use Only	21	21		21		21		21	
Utility Buildings	21	21		21		21		21	

Pop. at Percent Division from Base Year **Pop. at Percent Division from Base Year *Pop. at Percent Division from Base Year

REMARKS

Tooele Army Depot



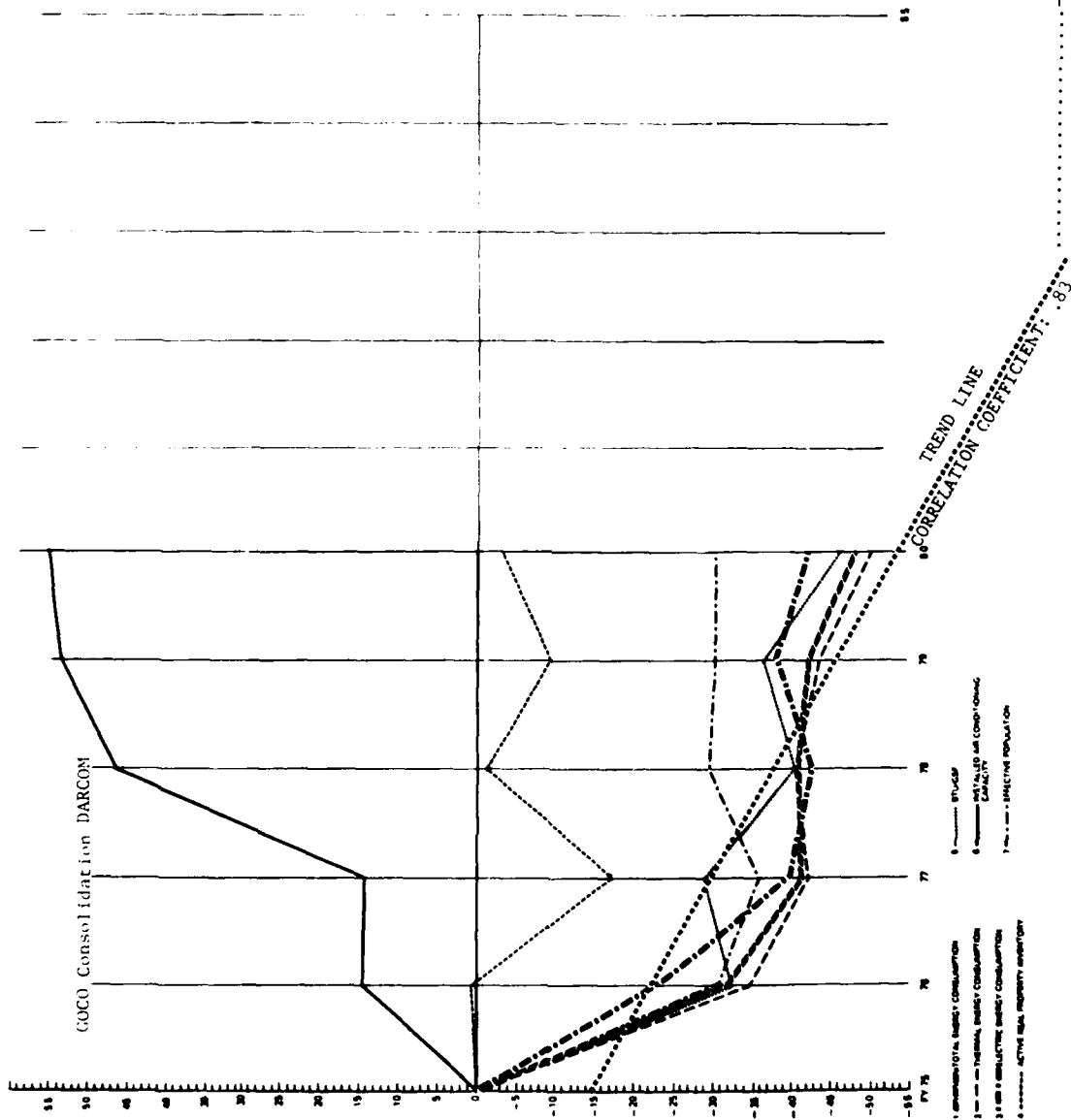
UNITARY	75	76	77	78	79	80
WATER	1,331,932	1,225,371	1,264,065	1,167,517	1,202,471	1,362,078
WATER	851,218	747,477	796,361	735,536	765,532	858,465
WATER	500,214	477,894	467,704	431,981	436,939	503,613
PEOPLE	759	661	401	542	432	567
PEOPLE	6,505	6,120	5,706	5,272	5,970	6,108
PEOPLE	6,766	6,781	6,107	5,769	5,402	5,867
PEOPLE	1,761	2,568	2,103	2,288	2,089	3,670
PEOPLE	283.8	180.7	207.0	202.4	222.6	118.0
PEOPLE	167.7	477.2	348.2	510.3	575.6	371.1
PEOPLE	2,911.1	1,036.6	1,166.3	789.2	1,057.7	887.8
PEOPLE	1,621.1	1,621.1	1,312.1	1,312.1	1,302.1	1,322.1
PEOPLE	286.0	286.0	355.1	328.0	351.0	379.3
PEOPLE	16,172.2	17,876.8	17,612.1	18,601.1	19,710.1	20,404.1
PEOPLE	9,10	6,94	7,65	8,13	9,46	5,56
PEOPLE	84,380	68,741	71,769	63,266	61,008	66,733
PEOPLE	53,159	41,912	45,214	39,543	37,825	42,081
PEOPLE	31,721	26,800	26,555	21,221	21,183	24,671
PEOPLE	29	19	51	51	51	51
PEOPLE	2,249	2,156	1,954	2,075	2,086	2,072
PEOPLE	22,067	11,982	8,127	8,804	8,800	9,474
PEOPLE	50	35	19	42	52	51
PEOPLE	571	456	454	422	437	465
PEOPLE	114	114	125	125	125	125
PEOPLE	240	215	216	216	216	216
PEOPLE	174	174	174	174	174	174
PEOPLE	518	562	504	510	517	510
PEOPLE	110	118	111	114	115	112
PEOPLE	5	5	11	11	12	16

- 1 Energy Consumption & PD
- 2 Thermal En Cons & PD
- 3 Electrical En Cons & PD
- 4 Resident Population & PD
- 5 Non-Resident Population & PD
- 6 Population Served & PD
- 7 Effective Population & PD
- 8 En Consumption/Pop Served & PD
- 9 En Consumption/Pop & PD
- 10 En Consumption/Pop & PD
- 11 Available Air Cond Capacity & PD
- 12 Elec Energy/Pop of Air Cond & PD
- 13 Real Property Inventory & PD
- 14 RPI/Effective Population
- 15 Energy Consumption/GSF & PD
- 16 Thermal En Consumption/GSF & PD
- 17 Electrical En Consumption/GSF & PD
- 18 RPI by Category
- 19 Training
- 20 Maintenance & Production
- 21 Research, Development & Testing
- 22 Storage
- 23 Other Contract Storage
- 24 Hospital & Medical
- 25 Administration
- 26 Bachelor Housing
- 27 Community Facilities
- 28 Family Housing
- 29 Quartermaster Buildings
- 30 Utility Buildings
- 31 Other

*PD is Percent Deviation from Base Year **Population Served is the Total Resident & Non-Resident Population ***RPI by Category

REMARKS Data includes Pueblo AD, Ft Wingate AD, Umatilla AD and Navajo AD which are sub-activities of Tooele AD.

- 1 FY 76 ECIP (Wingate) - Insulation - \$140,386 - Completed May 1977
- 2 FY 76 ECIP (Pueblo) - Insulation - \$1,573,709 - Completed December 1977
- 3 FY 77 ECIP (Pueblo) - Energy Monitoring/Control System - \$379,000 - Completed (estimated) June 1978
- 3 FY 77 ECIP (Tooele) - Insulation - \$2,572,000 - Completed (estimated) June 1978



U.S. Army ANALYSIS OF ENERGY CONSUMPTION

INSTALLATION CCCC CONSOLIDATION MACOM DABCOR

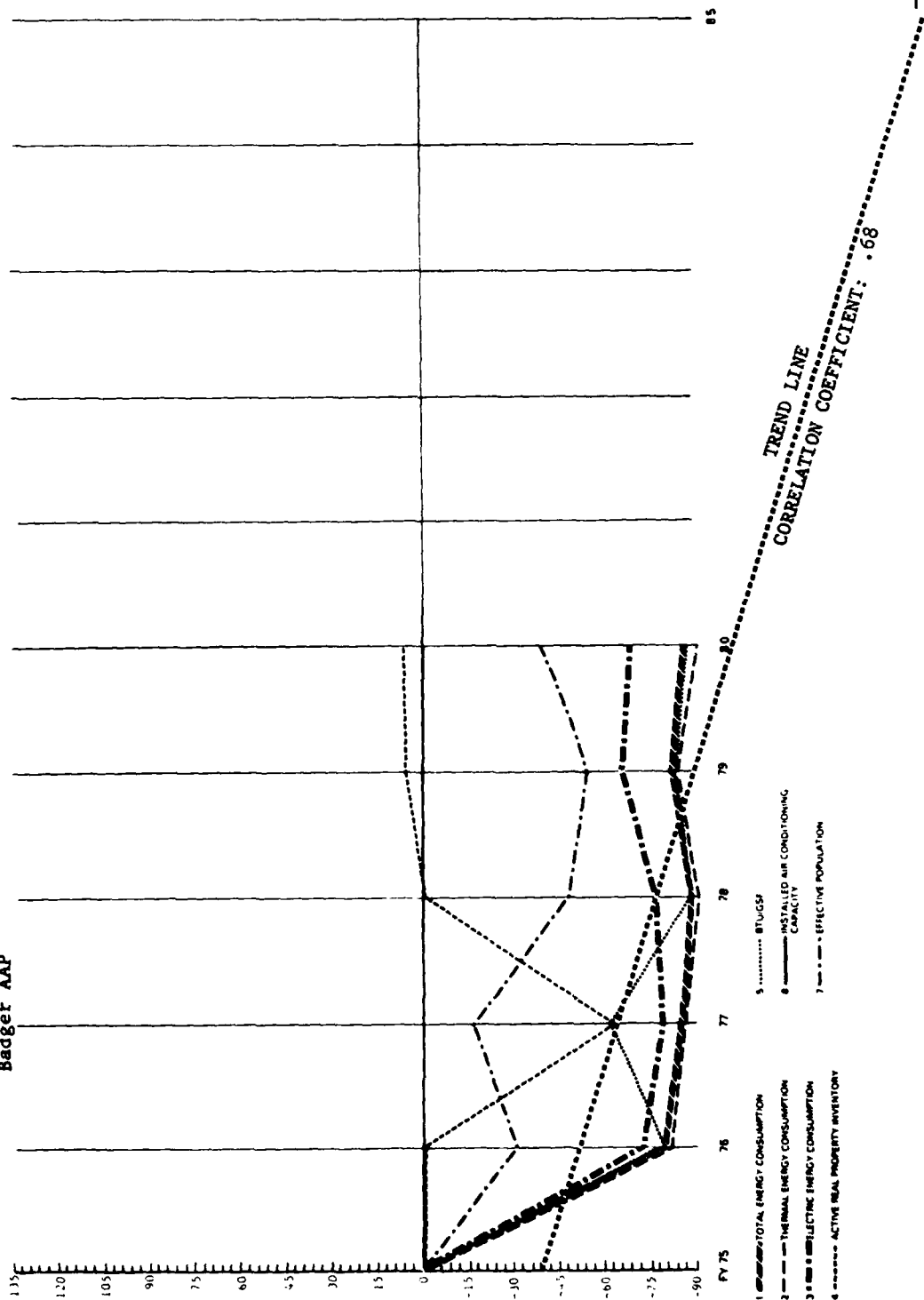
UNITARY	75	76	77	78	79	80
1 Energy Consumption in PD	28,418,857	19,710,753	16,387,892	17,167,602	15,745,020	15,066,689
2 Thermal in Cans & PD	22,418,407	14,634,499	13,016,583	13,313,663	12,813,302	12,231,825
3 Electrical in Cans & PD	6,560,450	5,035,254	3,371,309	3,787,739	3,000,842	3,192,864
4 Residential Population in PD	1,072	1,048	817	1,219	1,219	1,219
5 Non-Residential Population in PD	32,315	21,506	20,398	22,651	22,311	22,021
6 Population Survey*** in PD	33,387	22,534	21,235	23,447	23,189	22,842
7 Electric Population*** in PD	11,844	8,217	7,636	8,366	8,275	8,264
8 in Consumption*** in PD	868.0	873.9	800.0	731.3	722.1	656.6
9 in Consumption*** in PD	2,446.7	2,398.7	2,224.7	2,034.6	2,032.7	1,832.2
10 Electric in Consumption*** in PD	6,119.8	4,824.2	4,744.6	4,733.3	4,976.3	4,104.8
11 Industrial in Consumption*** in PD	16,017	18,383	18,364	23,485	24,558	24,188
12 Total Energy*** in Consumption*** in PD	408.1	275.0	216.2	160.4	165.8	153.0
13 Total Energy*** in Consumption*** in PD	58,302	38,572	48,070	57,582	52,755	56,375
14 Energy Consumption*** in PD	4.92	7.13	6.30	6.90	6.38	6.82
15 Thermal in Consumption*** in PD	197,047	336,513	353,389	297,791	317,428	267,258
16 Thermal in Consumption*** in PD	184,522	230,196	270,786	232,358	260,267	199,979
17 Thermal in Consumption*** in PD	11,457	86,317	82,603	65,433	77,161	67,279
18 Total in Consumption*** in PD						
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PD & Percent Conversion from Base Year **Population Survey is the total Population & Non-Resident Population ***1978 Pop. in Resident & 1/2 Non-Resident

DATA FOR SCRANTON AAP WAS NOT REPORTED FOR FY 78, 79 AND 80. ENERGY CONSUMPTION DATA WAS OBTAINED FROM DEIS AND FY 77 DATA WAS CARRIED OVER FOR MISSING YEARS TO PROVIDE FOR MORE CONSISTENT COMPARISONS IN OTHER DATA FIELDS.

REMARKS

Badger AAP



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION BACKER APP. 11 MACOM VARIOUS CLIMATIC REGION 1 HDD 7,382 CDD 631

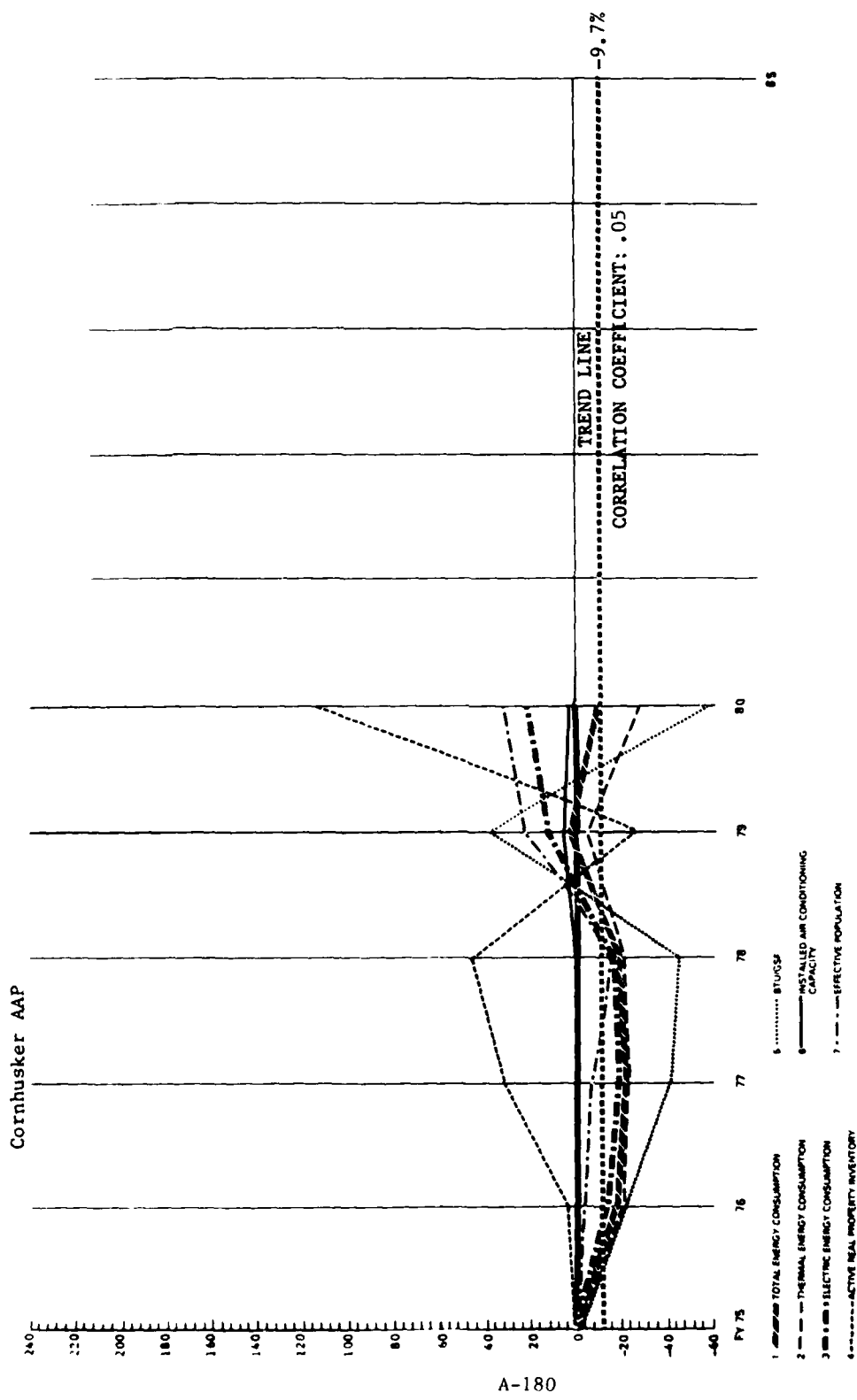
UNIT/SPY	75	76	77	78	79	80
1 Energy Consumption in PD						
2 Thermal En. Cons. in PD	2,632,845	372,507	1,800,000	184,704	301,669	225,895
3 Electrical En. Cons. in PD	1,303,903	238,721	1,065,182	177,426	217,202	148,175
4 Resident Population in PD	265,982	68,776	1,722,000	57,258	84,467	77,720
5 Non-Resident Population in PD						
6 Population Served*** in PD	411	283	1,311	211	187	253
7 Electric Population*** in PD	411	283	1,311	211	187	253
8 En. Consumption/Pop Served in PD	137	96	131	70	62	84
9 En. Consumption/Pop in PD	3,284.9	1,332.3	1,271.0	875.2	1,613.2	897.9
10 Electric En. Consumption/Resident Population	11,270.0	5,571.1	1,271.0	2,036.0	5,885.6	2,689.2
11 Industrial En. Cons. in PD						
12 En. Consumption of Air Cond. in PD	410	410	1,000	410	410	410
13 Heat Properties Inventory (Btu in PD)	4,060	4,060	1,000	4,060	4,060	4,060
14 Btu in PD	4,060	4,060	1,000	4,060	4,060	4,060
15 Energy Consumption/GSF in PD	401,913	80,906	1,800,000	57,917	69,377	51,181
16 Thermal En. Consumption/GSF in PD	363,326	61,916	1,800,000	45,561	70,139	57,566
17 Electrical En. Consumption/GSF in PD	40,587	18,990	1,200,000	31,432	50,500	34,667
18 Btu in PD						
19 Training	11	11	11	11	11	11
20 Maintenance & Production	2,973	2,973	2,973	2,973	2,973	2,973
21 Research, Development & Testing						
22 Storage	518	518	518	518	518	518
23 Other Covered Storage						
24 Hospital in Medical						
25 Administration	11	11	11	11	11	11
26 Bachelor Housing	145	145	145	145	145	145
27 Community Facilities						
28 Family Housing	65	65	65	65	65	65
29 Operational Buildings	28	28	28	28	28	28
30 Utility Buildings	108	108	108	108	108	108
31 Other						

**Population Served is the total Resident & Non-Resident Population

**PD is Percent Deviation from Base Year

***Btu Pop in Resident + 1/3 Non-Resident

RE MARKS

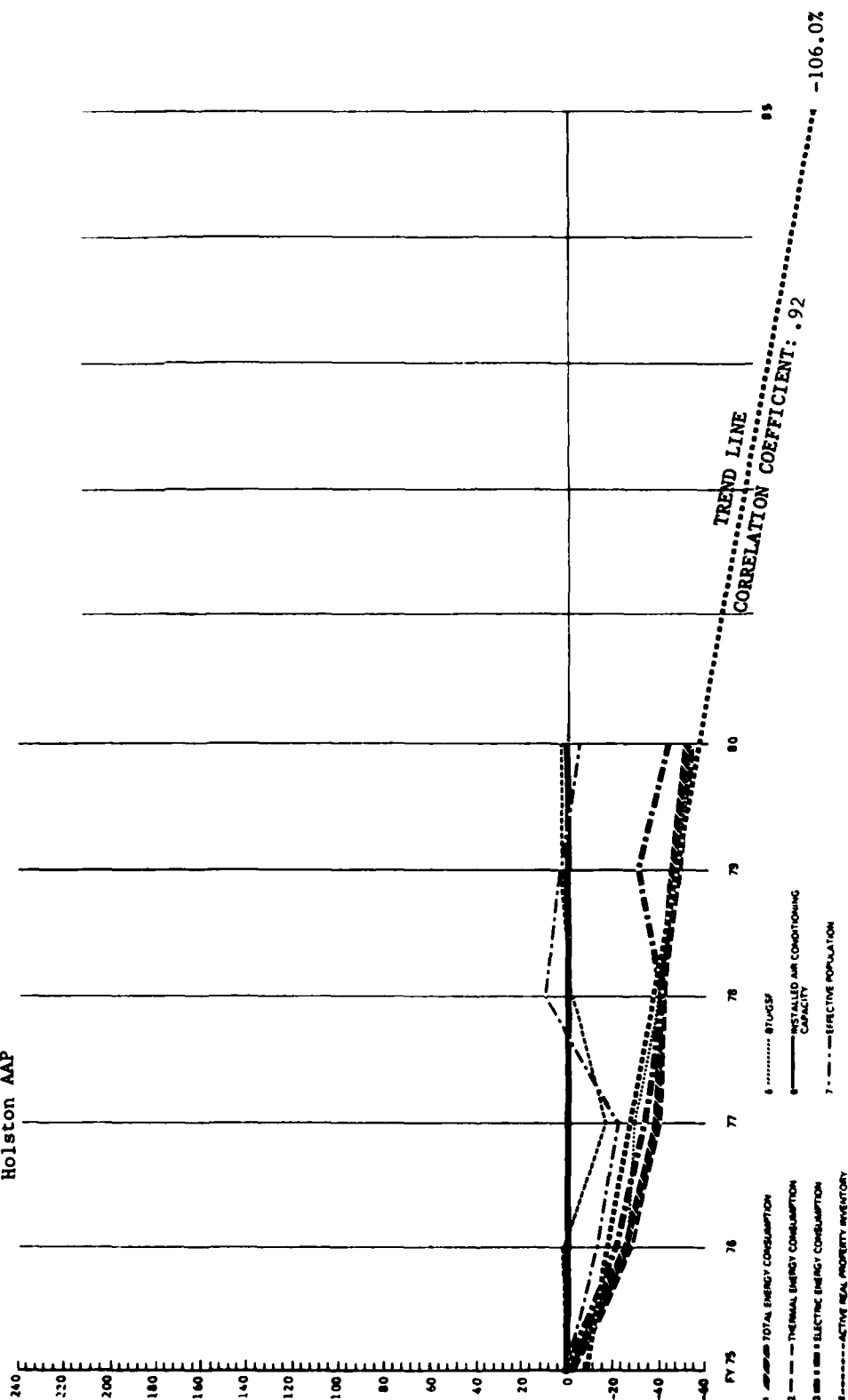


A-180

UNITARY	76	77	78	79	80
1 Energy Consumption & PD	63,133	34,811	13,837	14,600	63,757
2 Thermal En Cons & PD	27,114	12,919	20,979	21,452	25,817
3 Electrical En Cons & PD	15,959	13,526	12,858	13,168	17,940
4 Resident Population & PD	41	41	41	41	41
5 Non-Resident Population & PD	97	97	97	97	97
6 Population "Servant" & PD	155	155	155	155	155
7 Military Personnel & PD	278.1	278.1	278.1	278.1	278.1
8 En Consumption/Pop Served & PD	345.9	345.9	345.9	345.9	345.9
9 En Consumption/Pop & PD	389.7	389.7	389.7	389.7	389.7
10 Electric En Consumption/Person	42	42	42	42	42
11 Installed Air Cond Capacity & PD	379.9	379.9	379.9	379.9	379.9
12 Air Conditioning & PD	374	374	374	374	374
13 Heat Production Inventory & PD	6,410	6,410	6,410	6,410	6,410
14 Institutional Population	133,126	133,126	133,126	133,126	133,126
15 Energy Consumption/GSP & PD	81,870	81,870	81,870	81,870	81,870
16 Thermal En Consumption/GSP & PD	49,236	49,236	49,236	49,236	49,236
17 Electrical En Consumption/GSP & PD	32,634	32,634	32,634	32,634	32,634
18 Btu for Camp	135	135	135	135	135
19 Maintenance & Production	135	135	135	135	135
20 Research, Development & Training	135	135	135	135	135
21 Storage	135	135	135	135	135
22 Other Command Storage	135	135	135	135	135
23 Hospital & Medical	135	135	135	135	135
24 Administration	135	135	135	135	135
25 Facilities Housing	135	135	135	135	135
26 Community Facilities	135	135	135	135	135
27 Family Housing	135	135	135	135	135
28 Quartermaster Facilities	135	135	135	135	135
29 Utility Buildings	135	135	135	135	135
30 Other	135	135	135	135	135

*PD is Percent Derivation from Base Year **Population Served is per Unit Population & Non-Resident Population ***GSP Pop is Resident + 1/2 Non-Resident

Holston AAP



UNITARY	PS	PS	PS	PS	PS	PS	PS	PS	PS
UNITARY	7,061,495	5,217,011	1,266,111	4,286,332	1,39,311	4,127,715	1,41,611	3,766,274	1,47,111
UNITARY	6,002,496	4,382,290	1,221,011	3,600,319	1,40,011	3,508,358	1,41,611	3,030,682	1,49,111
UNITARY	1,059,288	834,721	1,21,211	685,811	1,35,111	819,137	1,41,611	715,532	1,52,111
PEOPLE	0	0	0	0	0	0	0	0	0
PEOPLE	2,025	1,755	1,13,211	1,553	1,23,311	2,234	1,11,311	2,059	1,71
PEOPLE	2,025	1,755	1,13,211	1,553	1,23,311	2,234	1,11,311	2,059	1,71
PEOPLE	675	585	1,13,311	518	1,23,311	751	1,11,311	686	1,71
UNITARY	3,487,4	2,972,7	1,14,811	2,760,0	1,20,911	1,811,3	1,47,511	1,829,2	1,47,511
UNITARY	10,462,2	8,918,0	1,14,811	8,274,8	1,20,911	5,496,3	1,47,511	5,490,2	1,47,511
TONS	180	180	0	180	0	180	0	180	0
UNITARY	5,885,0	4,637,3	1,21,211	3,810,1	1,35,311	3,439,8	1,41,611	3,075,5	1,47,511
UNITARY	2,449	2,457	1,0,311	2,053	1,16,211	2,416	1,11,311	2,488	1,11,311
UNITARY	3,61	4,20	1,15,811	3,961	9,211	3,22	1,11,311	3,831	1,0,0
UNITARY	2,883,424	2,123,326	1,26,411	2,087,818	1,27,611	1,708,491	1,40,811	1,513,776	1,47,511
UNITARY	2,451,080	1,883,594	1,27,211	1,553,784	1,28,411	1,452,278	1,40,811	1,226,158	1,50,0
UNITARY	3,12,441	1,37,717	1,21,311	1,14,054	1,27,811	1,26,274	1,40,811	181,611	1,53,5
UNITARY	0	0	0	0	0	0	0	0	0
UNITARY	1,371	1,378	0	976	0	1,258	0	1,514	0
UNITARY	25	25	0	26	0	25	0	25	0
UNITARY	509	509	0	215	0	215	0	215	0
UNITARY	12	12	0	12	0	12	0	12	0
UNITARY	110	110	0	126	0	132	0	128	0
UNITARY	64	64	0	57	0	57	0	32	0
UNITARY	10	10	0	20	0	20	0	23	0
UNITARY	337	337	0	337	0	338	0	334	0
UNITARY	24	24	0	24	0	24	0	24	0

- 1 Energy Consumption G PD
- 2 Thermal En. Cons. G PD
- 3 Electrical En. Cons. G PD
- 4 Fuel En. Cons. G PD
- 5 Non-Population En. Cons. G PD
- 6 Non-Population En. Cons. G PD
- 7 Population En. Cons. G PD
- 8 En. Consumption/Person Served G PD
- 9 En. Consumption/Person Served G PD
- 10 En. Consumption/Person Served G PD
- 11 Available Air Cond Capacity G PD
- 12 Total En. Consumption of Air Cond G PD
- 13 Total En. Consumption of Air Cond G PD
- 14 Available En. Cons. G PD
- 15 En. Consumption/Person Served G PD
- 16 Thermal En. Consumption/Person Served G PD
- 17 Electrical En. Consumption/Person Served G PD
- 18 Fuel En. Consumption/Person Served G PD

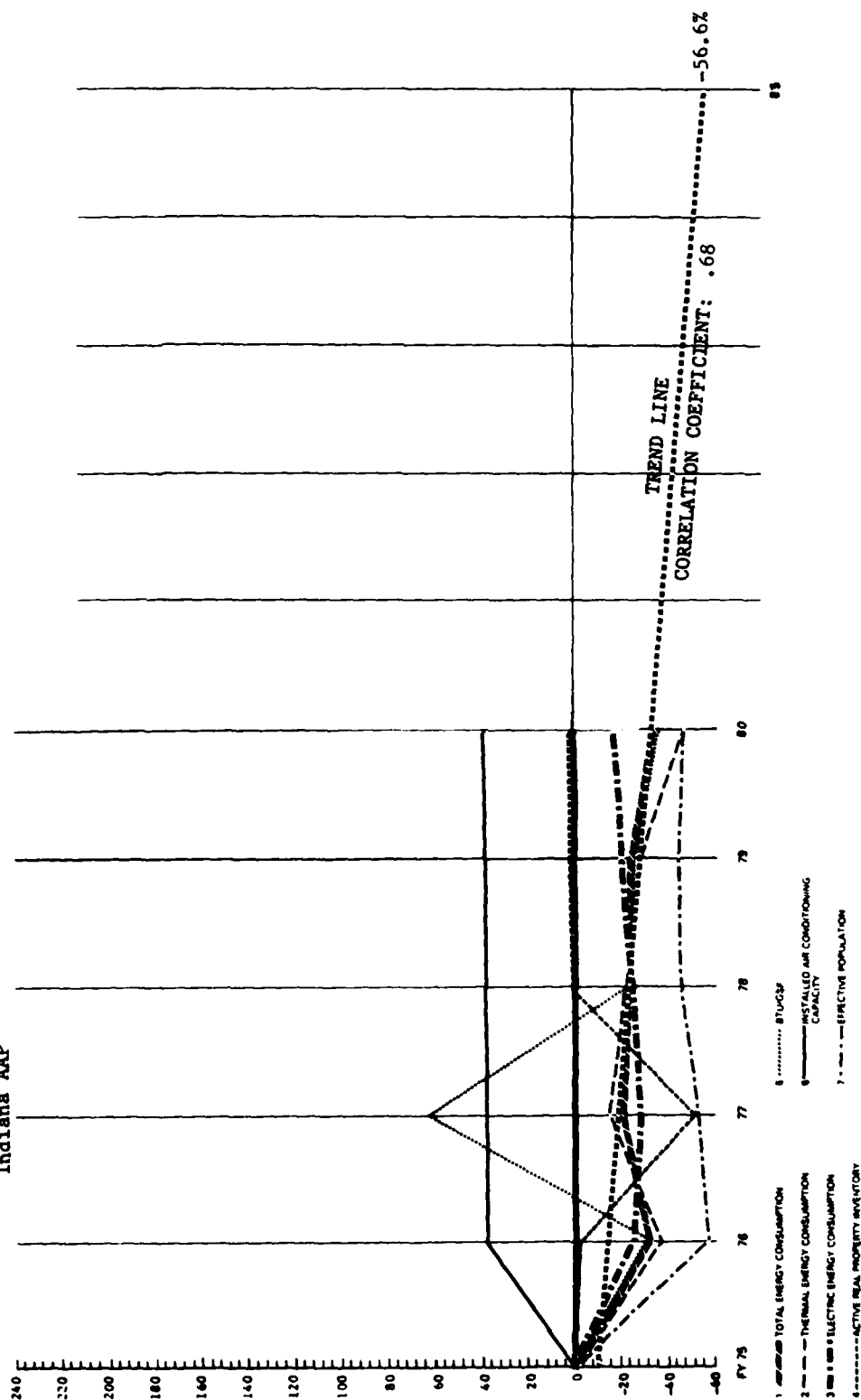
- 19 Training
- 20 Maintenance & Production
- 21 Research, Development & Testing
- 22 Storage
- 23 Other General Storage
- 24 Hospital & Medical
- 25 Administration
- 26 Education & Training
- 27 Community Facilities
- 28 Family Housing
- 29 Other Buildings
- 30 Other

**Population Served is the total Population & Non-Population Population

**PD is Percent Distribution from Base Year

4844444

Indiana AAP



U.S. Army - ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - INDIANA AAR, IND. - MACOM - DARCOM - CLIMATIC REGION - 3 HOD 4,640 CDD 1,268

UNITARY	76	77	78	79	80						
1 Energy Consumption & PD	515,026	247,760	1-32,51	406,338	1-21,11	391,877	1-23,91	381,599	1-25,91	336,658	1-36,72
2 Thermal En. Cons. & PD	293,565	184,313	1-37,21	247,867	1-35,61	227,289	1-22,61	206,064	1-29,81	156,835	1-42,31
3 Electrical En. Cons. & PD	221,663	163,447	1-26,21	158,472	1-28,41	164,588	1-25,71	175,535	1-20,71	181,633	1-18,01
4 Resident Population & PD	206	206	0	206	0	204	0	203	1-0,51	206	0
5 Non-Resident Population & PD	1,208	1,040	1-67,61	1,174	1-63,41	1,441	1-55,11	1,451	1-54,81	1,627	1-55,51
6 People	1,412	1,246	1-63,51	1,378	1-59,61	1,645	1-51,81	1,656	1-51,51	1,831	1-52,21
7 Effective Population *** & PD	1,212	551	1-56,71	595	1-53,31	684	1-46,01	687	1-46,01	880	1-46,61
8 En. Consumption/Pop. Served & PD	150.9	219.5	1-83,21	284.9	1-95,41	236.9	1-87,01	230.7	1-82,81	206.3	1-86,61
9 En. Consumption/GSP & PD	608.6	631.1	1-56,01	682.9	1-68,81	572.9	1-41,61	555.5	1-37,31	494.8	1-22,31
10 Electric En. Consumption/Resident Population	1,085.6	801.2	1-26,21	776.8	1-28,41	806.8	1-25,71	864.7	1-20,31	890.4	1-18,01
11 Installed Air Cond Capacity & PD	1,002	1,388	1-38,51	1,388	1-38,51	1,390	1-38,71	1,390	1-38,71	1,400	1-39,21
12 Air Conditioning of Air Cond & PD	221.0	117.8	1-46,71	116.2	1-48,31	118.4	1-46,41	126.3	1-42,91	129.7	1-41,31
13 Heat Property Inventory: RPR & PD	4,670	4,660	1-0,21	2,263	1-51,51	4,676	1-0,11	4,691	1-0,41	4,688	1-0,41
14 Inefficiency Population	3.62	8.46	1-130,51	1,801	1-3,71	6.84	1-86,41	6.83	1-86,31	6.89	1-82,91
15 Energy Consumption/GSP & PD	110.284	74.627	1-32,31	179.557	1-62,81	83.806	1-24,01	81.347	1-26,21	71.770	1-34,91
16 Thermal En. Consumption/GSP & PD	62.862	93.552	1-32,11	109.530	1-74,21	48.608	1-22,71	43.928	1-30,11	33.026	1-47,51
17 Electrical En. Consumption/GSP & PD	47.422	15.074	1-26,01	70.027	1-47,21	35.198	1-25,81	37.420	1-21,11	38.746	1-18,31
18 RPR by Category											
Training	1	1		3		3		3		2	
Maintenance & Production	2,797	2,287		799		2,331		2,329		2,329	
Research, Development & Testing				4		4		4		4	
Storage	1,511	1,510		549		771		774		770	
Other Command Storage				528		706		719		719	
Headquarters & Medical	70	70		20		20		20		20	
Administration	183	180		89		191		191		191	
Bedside Housing											
Community Facilities	200	200		94		199		198		198	
Family Housing	115	115		115		115		114		112	
Operational Bed Sops	12	12		4		12		8		8	
Utility Buildings	32.3	31.8		58		324		329		329	
Other											

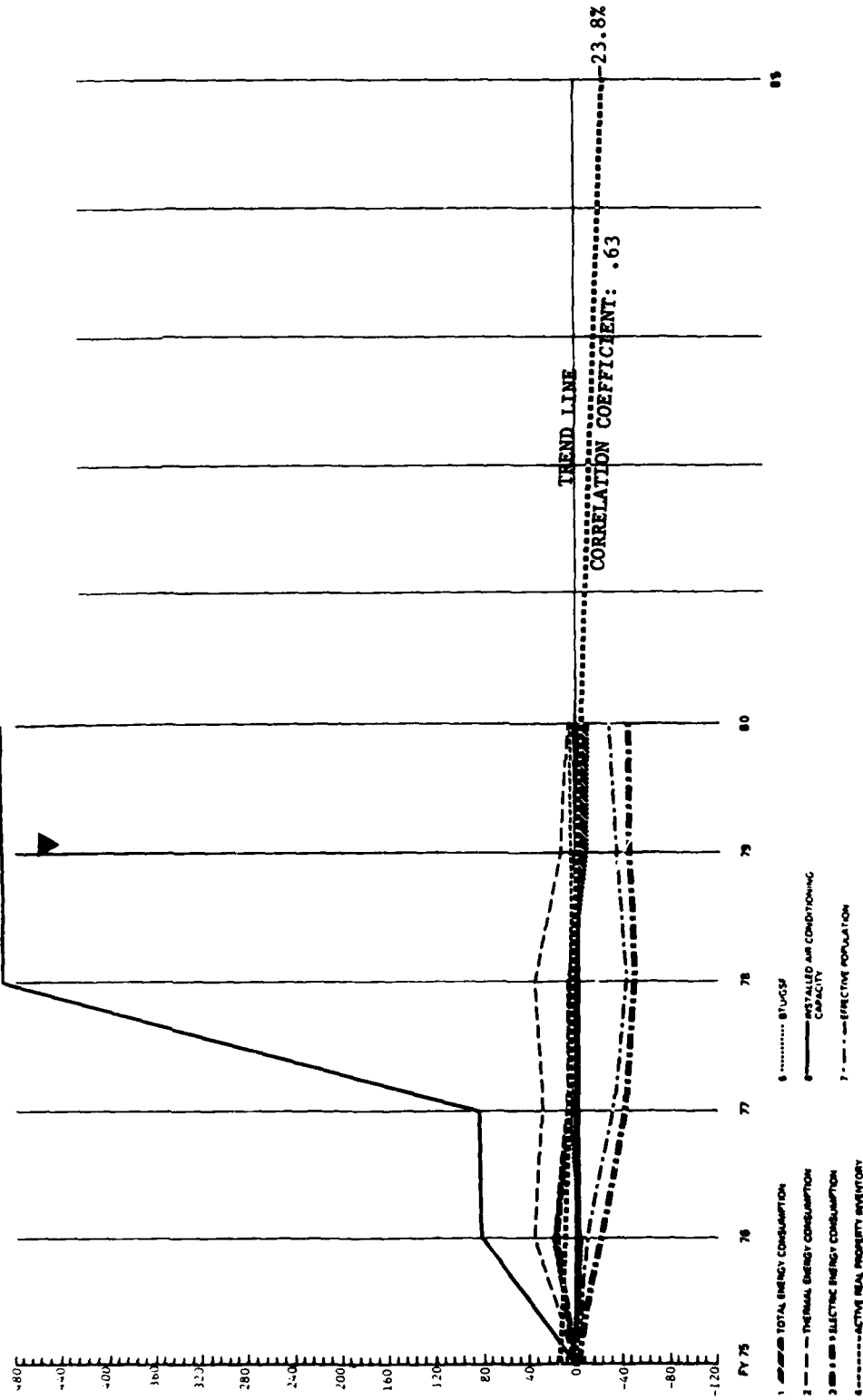
**PD is Percent Deviation from Base Year

**Population Served is the total Resident & Non-Resident Population

**RPR Pop & Residents + 100 Non-Residents

REMARKS

Iowa AAP



▼ FY 78 ECIP - Insulate Steam Lines - \$194,000 - completed (estimated) December 1979

U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION IEUA AWP, IA MACOM DARTMOUTH CLIMATIC REGION 2 MOD 5, 14-9 CDD 094

UNITARY	75	76	77	78	79	80
1 Energy Consumption & PD	1,268,589	1,517,626	1,368,747	1,791,837	1,365,264	1,145,080
2 Thermal En Conv & PD	875,327	1,214,101	1,116,061	1,398,811	1,174,128	1,000,500
3 Electrical En Conv & PD	393,262	303,525	252,686	392,826	191,136	144,580
4 Resident Population & PD	138	130	11	159,411	10	11
5 Non Resident Population & PD	1,531	1,402	1,304	1,284,111	1,083	1,163
6 Personnel Services *** & PD	1,751	1,568	1,411	1,328	1,111	1,203
7 Effective Population *** & PD	689	629	466	1,487,622	991	478
8 En Consumption/Pop Served & PD	724,5	967,9	1,025,3	1,415,511	1,276,7	990,7
9 En Consumption/En Pop & PD	1,841,2	2,412,8	2,937,2	1,595,511	3,491,7	2,784,7
10 Electric En Consumption/Pop Served & PD	2,489,0	1,909,0	1,506,0	1,201,611	6,371,2	5,065,3
11 Installed Air Cond Capacity & PD	841	1,539	1,831,011	1,239	4,990	5,000
12 Electric En Consumption/Pop Served & PD	462,6	497,2	1,572,1	1,531,2	38,3	40,5
13 Non Priority Inventory & PD	3,638	4,368	1,260	1,341	3,761	3,769
14 Inventory Population	5,28	6,94	1,52,811	8,07	9,62	8,791
15 Energy Consumption/Pop Served & PD	348,705	347,442	1,041	364,028	363,006	316,896
16 Thermal En Consumption/Pop Served & PD	240,607	277,954	1,15,511	302,144	312,185	261,022
17 Electrical En Consumption/Pop Served & PD	108,098	69,488	1,35,711	61,885	50,821	55,872
18 En Consumption/Pop Served & PD	1,401	2,063	1,498	1,498	1,498	1,498
19 Inventory Population	12	38	32	32	32	32
20 Research, Development & Training	1,876	1,879	906	906	906	906
21 Storage	5	5	5	5	5	5
22 Other Command Storage	114	117	87	87	87	87
23 Hospital & Medical	26	27	26	26	26	26
24 Bachelor Housing	90	90	90	90	90	90
25 Community Facilities	18	59	51	51	51	51
26 Family Housing	61	78	92	92	92	92
27 Quarters	1,048	1,048	1,048	1,048	1,048	1,048
28 Utility Buildings	1,048	1,048	1,048	1,048	1,048	1,048
29 Other	1,048	1,048	1,048	1,048	1,048	1,048

PD = Percent Deviation from Base Year

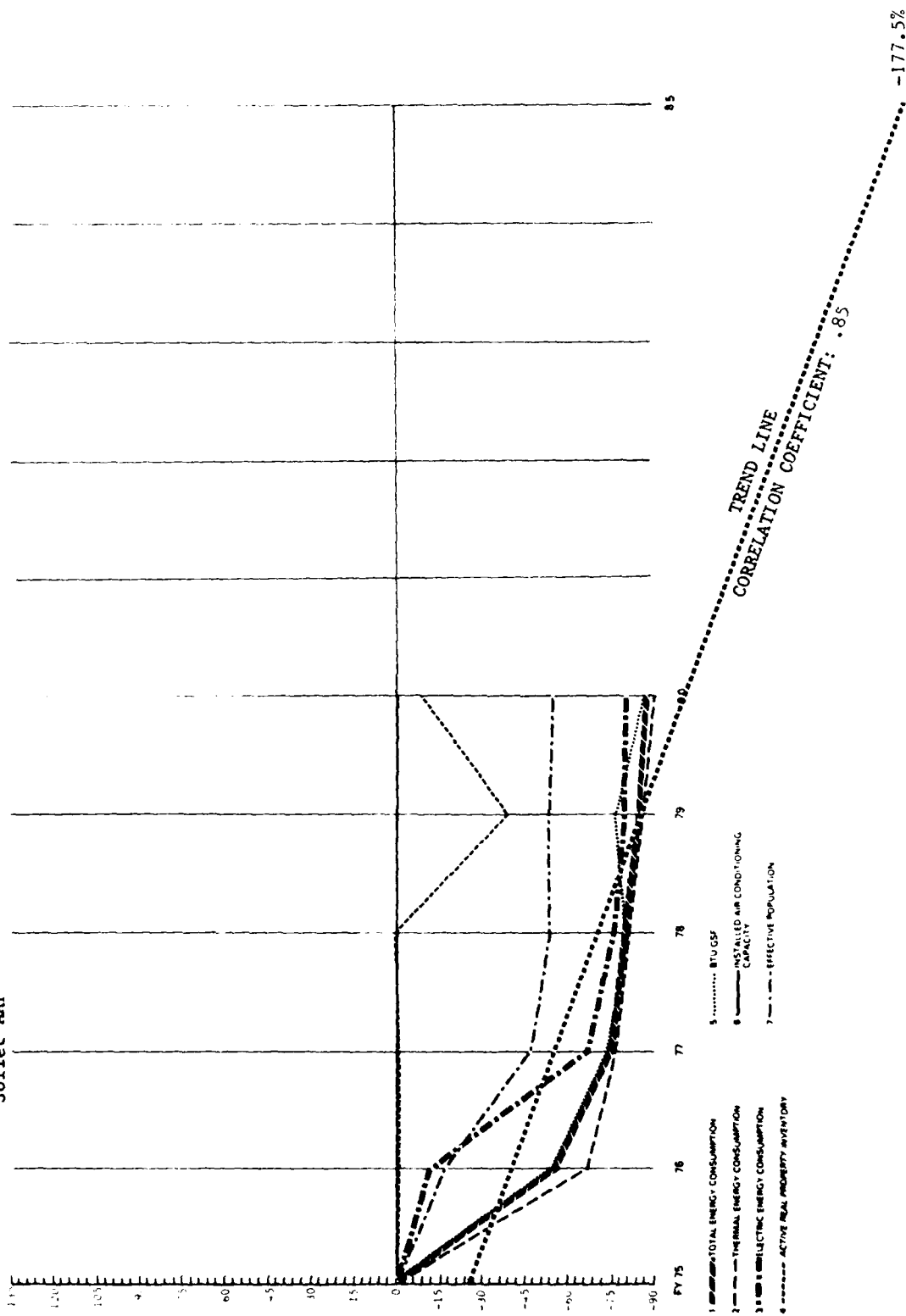
Population Served to the Unit Resident & Non-Resident Population

***Pop = Pop + Resident + 10 Non-Resident

WFY 78 ECIP - Insulate Steam Lines - \$194,000 - Completed (estimated) December 1979

REMARKS

Joliet AAP



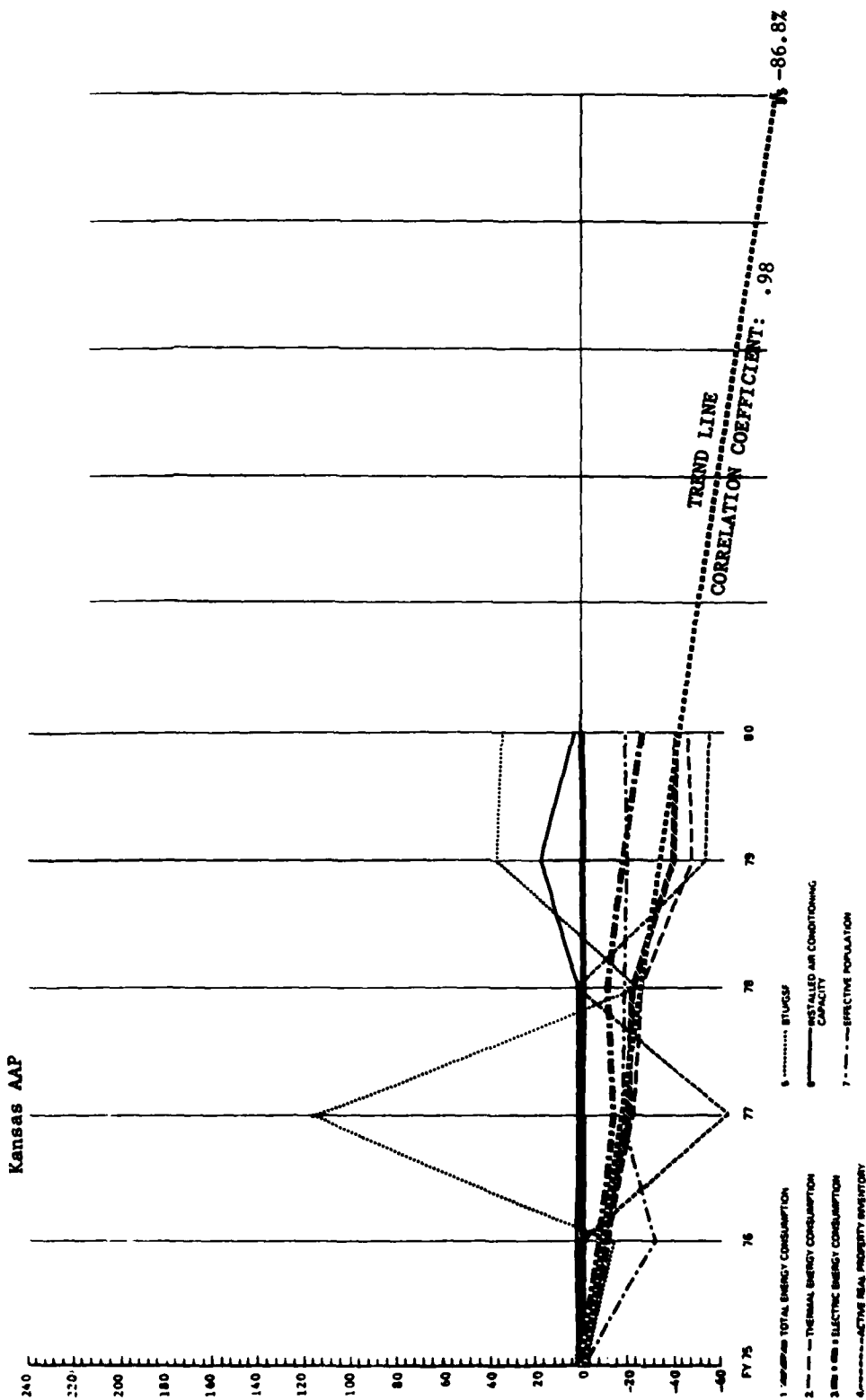
A-188

U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION JOLLET AFB, TX CLIMATIC REGION 2 HDD 6,180 CDD 993

UNITARY	76	77	78	79	80	81
1 Energy Consumption & PD	3,257,708	3,242,923	3,239,886	3,239,886	3,239,886	3,239,886
2 Thermal En Cons & PD	2,630,367	2,615,796	2,615,796	2,615,796	2,615,796	2,615,796
3 Electrical En Cons & PD	657,551	627,127	624,090	624,090	624,090	624,090
4 Resident Population & PD	200	202	195	187	186	181
5 Non-Resident Population & PD	1,376	1,021	1,021	1,021	1,021	1,021
6 Population Server*** & PD	1,573	1,228	1,228	1,228	1,228	1,228
7 Effective Population*** & PD	659	547	547	547	547	547
8 En Consumption/Pop Served & PD	2,090.1	1,175.1	1,262.0	1,262.0	1,262.0	1,262.0
9 En Consumption/En Pop & PD	4,988.9	2,638.0	2,372.2	2,372.2	2,372.2	2,372.2
10 Electric En Consumption/Population	3,283.7	2,788.4	2,788.4	2,788.4	2,788.4	2,788.4
11 Installed Air Cond Capacity & PD	877	877	877	877	877	877
12 Elec Energy/Ton of Air Cond & PD	749.8	658.1	658.1	658.1	658.1	658.1
13 Real Property Inventory 1976 & PD	5,083	5,049	5,053	5,118	5,118	5,118
14 Real Property Inventory 1976 & PD	7.71	9,231	16,481	17,000	17,000	17,000
15 Energy Consumption/GSF & PD	646,805	285,798	163,840	179,589	158,975	87,440
16 Thermal En Consumption/GSF & PD	517,444	171,479	121,442	138,488	114,463	58,761
17 Electrical En Consumption/GSF & PD	129,361	114,319	42,399	41,101	44,513	28,678
18 RPI by Category						
Training	1,276	1,276	1,276	1,276	1,276	1,276
Maintenance & Production	5	5	5	5	5	5
Research, Development & Testing	2,664	2,664	2,664	2,664	2,664	2,664
Storage	BASE	BASE	BASE	BASE	BASE	BASE
Other Camped Storage	12	12	12	12	12	12
Hospital & Medical	534	519	519	519	519	519
Administration	17	16	16	16	16	16
Bedroom Housing	183	178	178	178	178	178
Community Fire Room	142	131	127	127	127	127
Family Housing	12	14	14	14	14	14
Operational Air Shop	237	237	237	237	237	237
Utility Buildings	BASE	BASE	BASE	BASE	BASE	BASE
Other						

Population Served is the total Resident & Non-Resident Population *RPI Pop is Resident + 1/3 Non-Resident

REMARKS



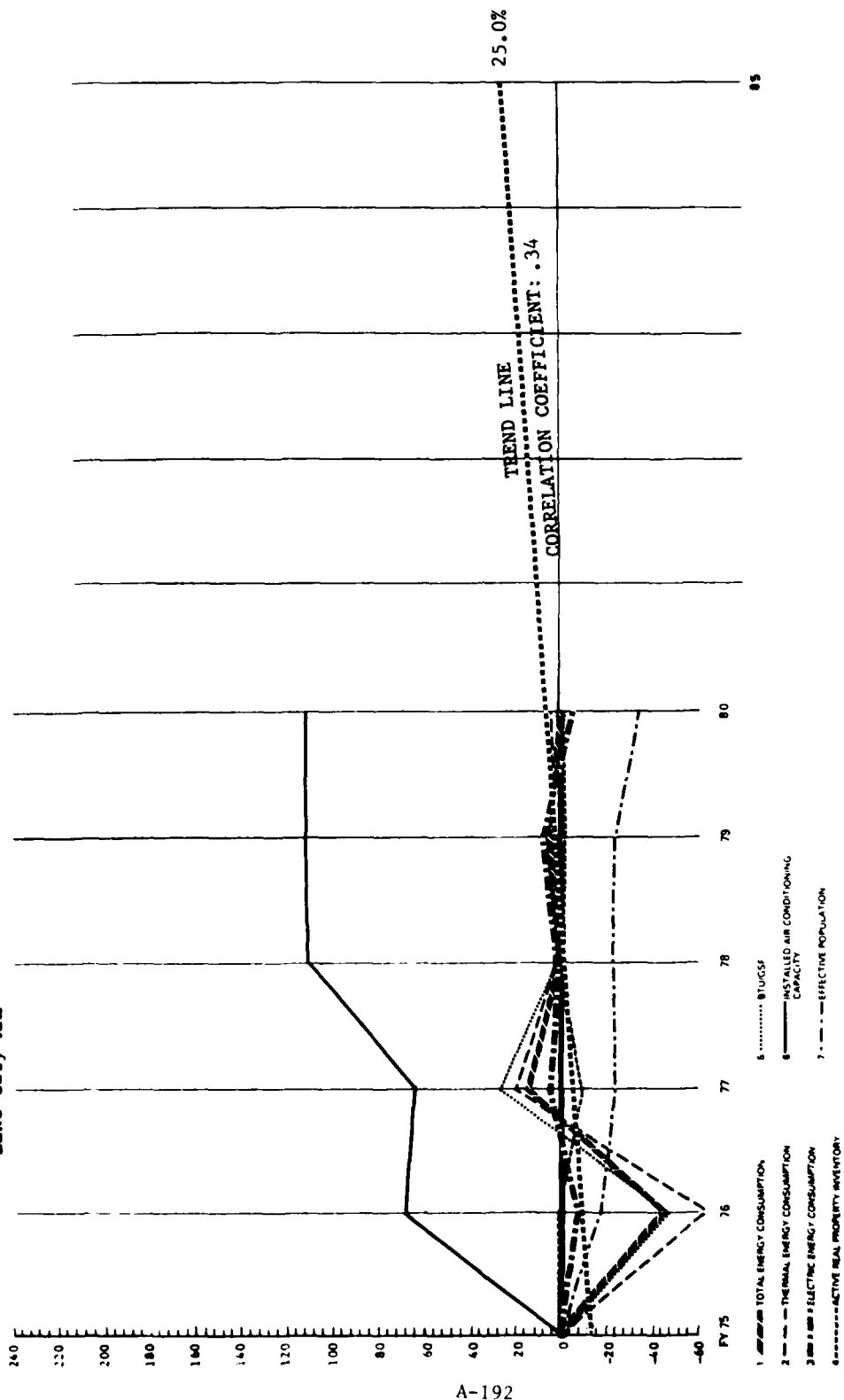
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION KANSAS AFB, KS MACOM TACOM CLIMATIC REGION 3 HDD₂ 1005 CDD 1,408

UNIT/SET	%	78	77	76	75	74	73	72	71	70	69	68
1 Energy Consumption & PD	14.5, 07.0	115, 53.1	1 - 8, 6.1	533, 23.8	1 - 31, 0.1	744, 29.1	1 - 21, 0.1	708, 32.7	1 - 19, 0.5	201, 54.7	1 - 43, 6.1	1 - 43, 6.1
2 Thermal En Cons & PD	24.5, 09.0	274, 09.9	1 - 8, 6.1	194, 09.0	1 - 31, 0.1	180, 49.4	1 - 26, 3.1	177, 13.5	1 - 40, 1.1	129, 37.5	1 - 47, 3.1	1 - 47, 3.1
3 Electrical En Cons & PD	100, 07.0	91, 50.6	1 - 8, 6.1	84, 94.8	1 - 15, 5.1	88, 89.9	1 - 11, 2.1	91, 28.2	1 - 10, 3.8	72, 37.2	1 - 27, 2.1	1 - 27, 2.1
4 Resident Population & PD	0	0	0	0	0	0	0	0	0	0	0	0
5 Non Resident Population & PD	1, 07.8	732	1 - 32, 1.1	893	1 - 17, 2.1	877	1 - 18, 6.1	869	1 - 19, 4.4	861	1 - 20, 1.1	1 - 20, 1.1
6 Population Served** & PD	1, 07.8	732	1 - 32, 1.1	893	1 - 17, 2.1	877	1 - 18, 6.1	869	1 - 19, 4.4	861	1 - 20, 1.1	1 - 20, 1.1
7 Effective Population*** & PD	359	244	1 - 32, 0.1	298	1 - 17, 0.1	292	1 - 18, 7.1	290	1 - 19, 2.1	287	1 - 20, 1.1	1 - 20, 1.1
8 En Consumption/Pop Served & PD	370, 1	411, 1	1 - 34, 7.1	305, 4	1 - 4, 6.1	307, 2	1 - 4, 0.1	278, 8	1 - 29, 2.1	234, 1	1 - 26, 9.1	1 - 26, 9.1
9 En Consumption/Pop & PD	961, 2	1, 293, 2	1 - 34, 5.1	915, 2	1 - 4, 8.1	922, 6	1 - 4, 0.1	718, 7	1 - 25, 2.1	702, 3	1 - 26, 9.1	1 - 26, 9.1
10 Electric En Consumption/Resident Population	850	860	1 - 1, 2.1	860	1 - 1, 2.1	860	1 - 1, 2.1	860	1 - 1, 2.1	860	1 - 1, 2.1	1 - 1, 2.1
11 Insulated Air Cond Capacity & PD	117, 7	106, 4	1 - 9, 6.1	98, 3	1 - 16, 5.1	103, 4	1 - 12, 3.1	81, 2	1 - 31, 0.5	82, 5	1 - 22, 9.1	1 - 22, 9.1
12 Elec Energy/Ton of Air Cond & PD	2, 16.1	2, 16.9	1 - 0, 3.1	708	1 - 63, 1.1	2, 70.2	1 - 1, 0.1	951	1 - 35, 5.1	953	1 - 35, 5.1	1 - 35, 5.1
13 Real Property Inventory (RPI) & PD	6, 02	8, 891	1 - 47, 6.1	361, 77.7	1 - 112, 0.1	122, 30.0	1 - 23, 4.1	218, 68.8	1 - 37, 0.1	211, 48.7	1 - 32, 6.1	1 - 32, 6.1
14 Intelligence Population	159, 681	145, 541	1 - 8, 9.1	215, 827	1 - 118, 0.1	41, 948	1 - 27, 7.1	131, 405	1 - 17, 0.1	135, 546	1 - 19, 6.1	1 - 19, 6.1
15 Energy Consumption/GSF & PD	113, 173	103, 314	1 - 8, 9.1	105, 950	1 - 128, 3.1	401, 375	1 - 22, 8.1	351, 291	1 - 86, 2.1	75, 941	1 - 64, 0.1	1 - 64, 0.1
16 Thermal En Consumption/GSF & PD	46, 107	49, 207	1 - 8, 9.1	105, 950	1 - 128, 3.1	401, 375	1 - 22, 8.1	351, 291	1 - 86, 2.1	75, 941	1 - 64, 0.1	1 - 64, 0.1
17 Electrical En Consumption/GSF & PD	46, 107	49, 207	1 - 8, 9.1	105, 950	1 - 128, 3.1	401, 375	1 - 22, 8.1	351, 291	1 - 86, 2.1	75, 941	1 - 64, 0.1	1 - 64, 0.1
18 All by Category												
Training	902	901		368		938		381				
Maintenance & Production	16	17		8		19		8				
Research, Development & Testing	1, 06.5	1, 07.0		126		976		297				
Scripts				201		90		138				
Other Covered Storage	10	10		8		10		8				
Hospital & Medical	95	95		57		95		59				
Administration												
Recreation Housing												
Community Facilities	29	30		13		30		13				
Family Housing												
Operational Buildings	10	12				11						
Utility Buildings	36	33		24		33		29				
Other												

* PD is Percent Deviation from Base Year ** Population Served is the total Resident & Non-Resident Population *** Eff Pop is Resident + 1/3 Non-Resident

REMARKS

Lake City AAP



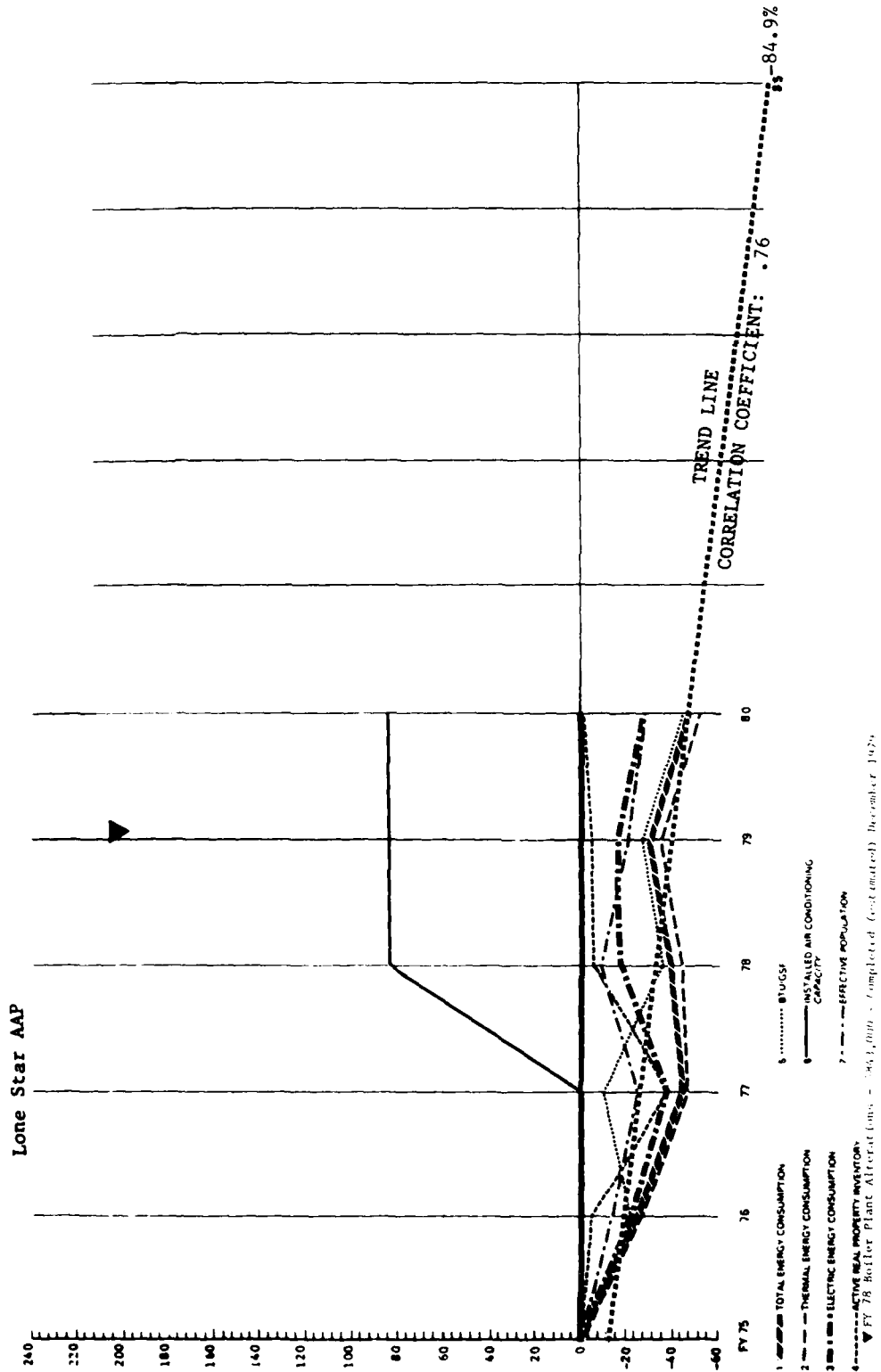
A-192

U.S. Army ANALYSIS OF ENERGY CONSUMPTION - 1970

CATEGORY	76	77	78	79	80
MRTU	1,049,559	1,205,894	1,057,194	1,095,961	1,067,821
MRTU	701,205	846,126	708,320	723,335	726,350
MRTU	348,354	361,768	348,874	372,626	371,471
PEOPLE	48	12	47	48	45
PEOPLE	2,692	2,113	2,004	1,984	1,686
PEOPLE	2,240	2,125	2,091	2,032	1,761
PEOPLE	281	216	228	709	610
MRTUCAP	383.1	565.5	505.6	513.4	601.9
MRTUCAP	1,110.6	1,684.2	1,452.2	1,543.8	1,712.7
MRTUCAP	7,215.7	30,147.3	7,422.9	7,748.1	7,143.8
TONS	1,230	2,010	2,592	2,592	2,592
MRTUCAP	2,286	180.0	134.6	143.8	124.0
MRTUCAP	1,154	180.0	134.6	143.8	124.0
STUCAP	3,154	2,843	3,162	3,123	3,149
STUCAP	3,326	3,971	4,334	4,401	5,116
STUCAP	177,697	424,163	334,343	350,932	332,742
STUCAP	222,957	296,914	224,013	231,615	210,661
STUCAP	109,816	122,249	130,333	119,317	107,801
STUCAP	2,231	3,909	2,229	2,208	2,278
STUCAP	731	67	67	67	65
STUCAP	732	669	669	669	669
STUCAP	50	43	43	43	43
STUCAP	14	14	14	14	14
STUCAP	41	41	41	41	41
STUCAP	91	91	91	80	80
STUCAP	731	669	669	669	669
STUCAP	50	43	43	43	43
STUCAP	14	14	14	14	14
STUCAP	41	41	41	41	41
STUCAP	91	91	91	80	80

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5. CONCLUSIONS

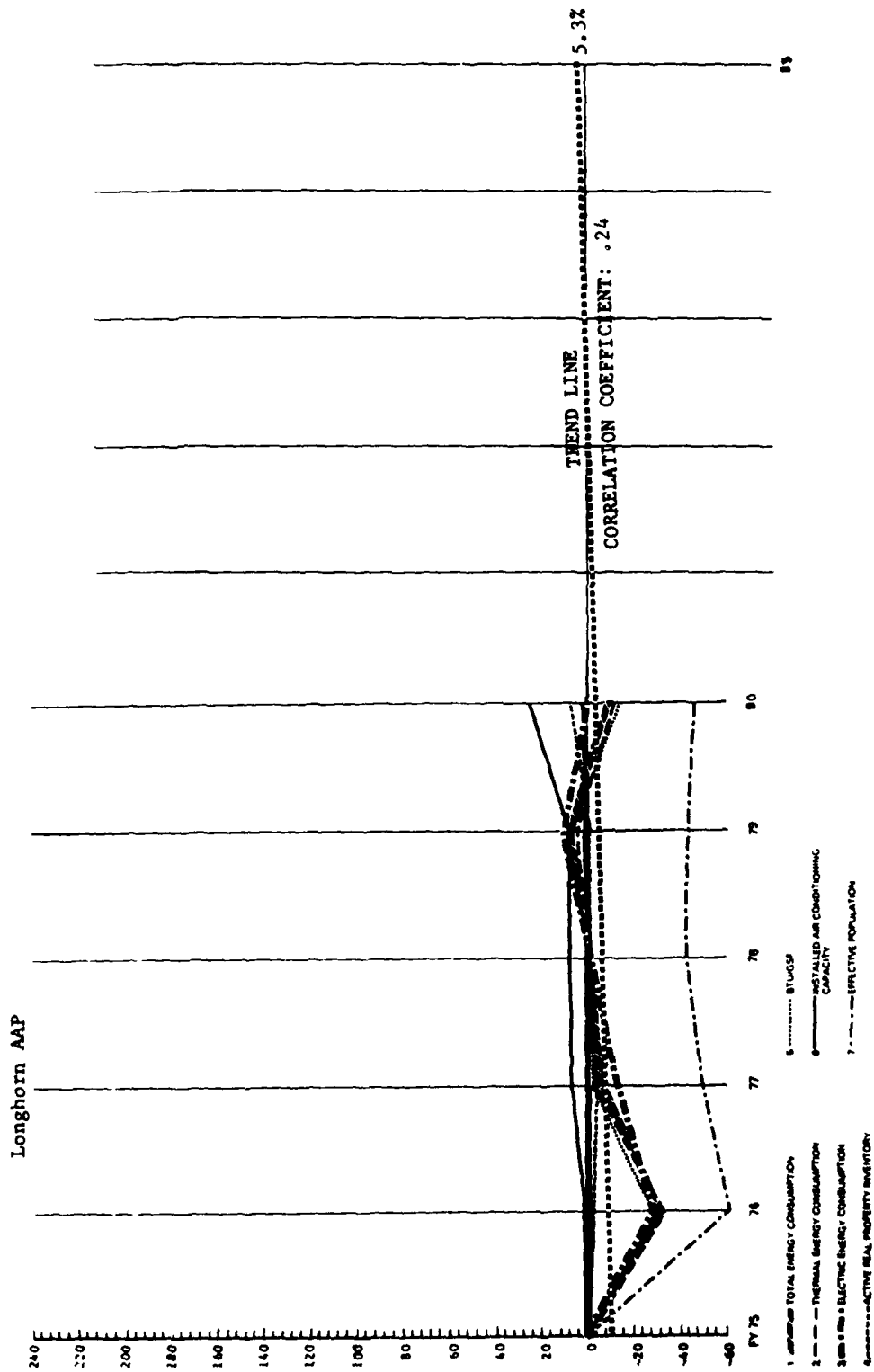


UNIT/TYPE	PS	PS	PS	PS	PS	PS	PS	PS	PS
1 Energy Consumption & PD	1,201,335	RR2,116	1-26,63	656,411	1-47,73	776,229	1-39,31	822,226	1-31,61
2 Thermal En Cons & PD	961,068	696,872	1-27,51	505,591	1-47,47	532,484	1-44,61	624,892	1-35,01
3 Electrical En Cons & PD	240,267	185,244	1-22,91	151,020	1-37,11	196,945	1-18,01	197,336	1-17,91
4 Resident Population & PD	2,494	2,137	1-24,31	1,849	1-25,91	2,275	1-8,81	1,971	1-21,01
5 Non-Resident Population & PD	2,494	2,137	1-24,31	1,849	1-25,91	2,275	1-8,81	1,971	1-21,01
6 Population Saved** & PD	831	712	1-16,31	616	1-25,91	758	1-8,81	657	1-21,01
7 Effective Population*** & PD	481.7	412.8	1-14,31	355.1	1-26,31	320.6	1-31,41	417.3	1-13,41
8 En Consumption/Pop Saved & PD	1,445.6	1,238.9	1-14,31	1,065.9	1-26,31	967.3	1-31,41	1,251.5	1-13,41
9 En Consumption/Pop & PD	2,768	2,768	1-0,01	2,768	1-0,01	5,087	1-81,81	5,087	1-81,81
10 Electric En Consumption/Resident Population	86.8	66.9	1-27,91	54.6	1-37,71	38.7	1-53,41	38.8	1-53,31
11 Industrial Air Cond Capacity & PD	3,178	3,023	1-4,91	1,941	1-38,91	3,015	1-5,11	3,018	1-5,01
12 Elec Energy/Ton of Air Cond & PD	3.82	4.25	1-11,01	3.15	1-17,61	3.986	4,01	4.59	4,20,71
13 Heat Recovery Inventory BPH & PD	178,016	291,802	1-22,81	338,285	1-10,51	241,933	1-36,01	272,441	1-27,91
14 HPH Effective Population	302,413	230,523	1-23,81	260,480	1-13,91	176,812	1-41,61	207,055	1-31,51
15 Energy Consumption/GSF & PD	75,603	61,278	1-18,91	77,805	1-2,91	67,321	1-13,61	65,386	1-13,51
16 Thermal En Consumption/GSF & PD	-	-	-	-	-	-	-	-	-
17 Electrical En Consumption/GSF & PD	-	-	-	-	-	-	-	-	-
18 APD by Category	-	-	-	-	-	-	-	-	-
Training	1,451	1,437	-	369	-	1,442	-	2,087	-
Maintenance & Production	8	8	-	2	-	2	-	6	-
Research, Development & Testing	1,328	1,324	-	722	-	232	-	771	-
Storage	-	-	-	603	-	598	-	-	-
Other Current Storage	13	13	-	13	-	13	-	13	-
Hospital & Medical	128	127	-	119	-	123	-	92	-
Administration	-	-	-	-	-	-	-	-	-
Recreation Housing	56	56	-	56	-	56	-	27	-
Community Fire Arms	-	-	-	-	-	-	-	-	-
Family Housing	-	-	-	-	-	-	-	-	-
Operational Air Base	9	17	-	17	-	41	-	22	-
Utility Buildings	185	41	-	41	-	41	-	22	-
Other	-	-	-	-	-	-	-	-	-
Non Available	-	-	-	-	-	-	-	-	-

PD & Percent Conversion from Base Year **Population Saved is the total Non-Res & Non-Resident Population *EP Pop & Resident & 1/3 Non-Resident

FY 78 Boiler Plant Alterations - \$843,000 - Completed (estimated) December 1979

REMARKS



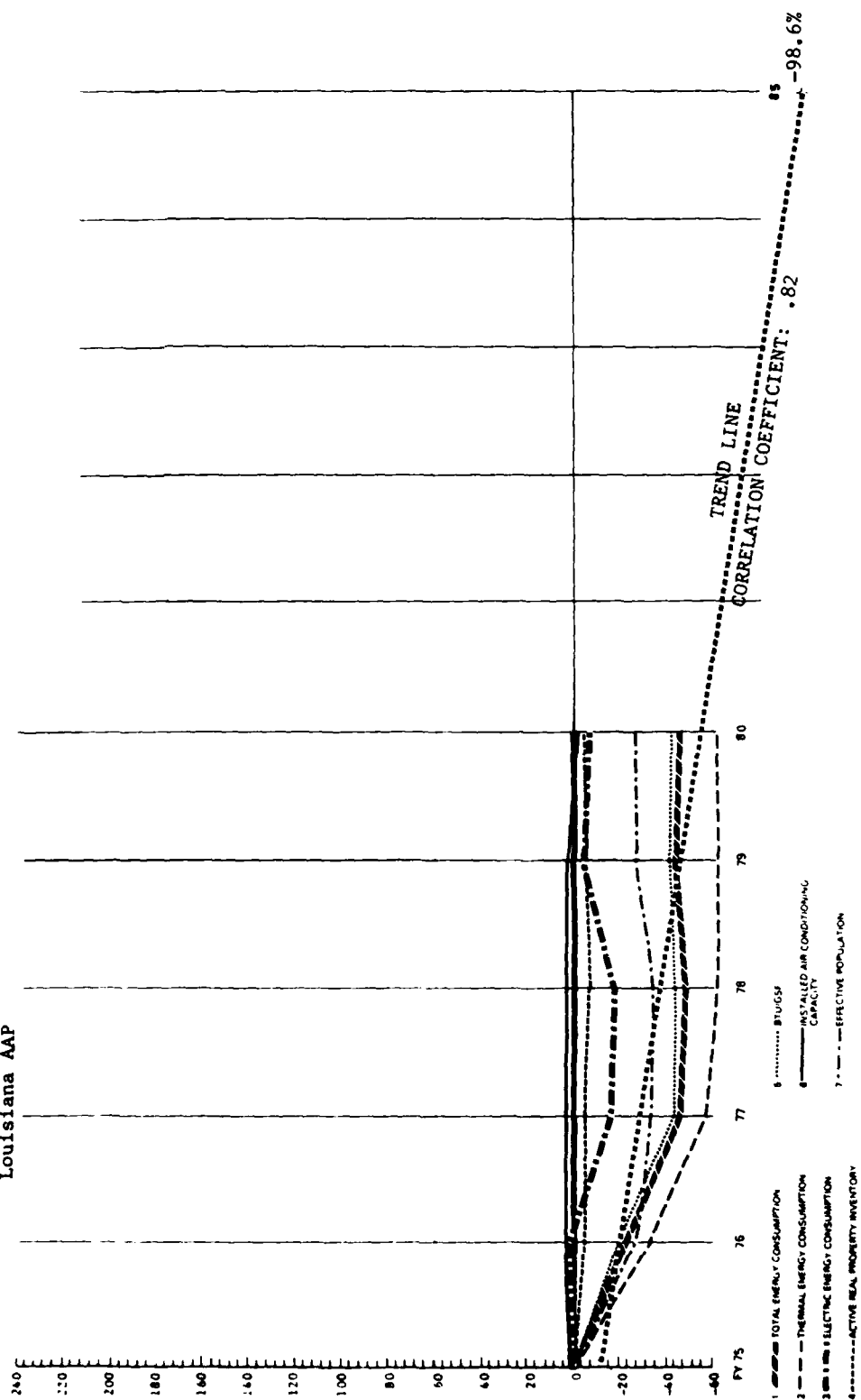
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION LONGHORN AFB, TX MACOM DABCOM CLIMATIC REGION 7 HDD 2,370 CDD 2,459

UNIT/STAFF	75	76	77	78	79	80
1 Energy Consumption to PD	660,533	651,056	673,165	658,943	695,502	584,129
2 Thermal En Conv to PD	502,006	338,292	478,269	500,797	521,627	431,450
3 Electrical En Conv to PD	158,527	112,764	134,896	158,146	173,875	152,679
4 Resident Population to PD						
5 Non Resident Population to PD	1,208	667	852	986	937	865
6 Population Served** to PD	1,208	667	852	986	937	865
7 Effective Population*** to PD	552	222	286	328	312	288
8 En Consumption/Pop Served to PD	346.7	876.2	712.6	655.3	722.3	673.3
9 En Consumption/Pop to PD	1,160.2	2,031.4	2,159.0	2,005.9	2,229.2	2,028.2
10 Electric En Consumption/Residence Population						
11 Installed Air Cond Capacity to PD	2,553	2,580	2,733	2,233	2,733	3,133
12 Electric Energy/Ton of Air Cond to PD	62.1	63.8	49.1	57.9	63.6	68.7
13 Real Property Inventory (RPI) to PD	1,329	1,315	1,271	1,326	1,326	1,397
14 RPI/Effective Population	2.33	5.92	46.8	4.08	4.25	4.85
15 Energy Consumption/GSF to PD	497.015	343,008	482,427	496,940	524,511	418,131
16 Thermal En Consumption/GSF to PD	377,232	257,256	376,293	377,675	393,384	308,840
17 Electrical En Consumption/GSF to PD	119,783	85,752	106,134	119,265	131,127	109,291
18 RPI by Category						
Training						
Maintenance & Production	525	611	613	606	606	672
Research, Development & Testing	69	69	69	69	69	69
Storage	441	441	157	157	157	157
Other Covered Storage						
Hospital & Medical	7	7	7	7	7	7
Administration	93	93	93	93	93	93
Bachelor's House						
Community Facilities	37	37	37	37	37	37
Family Housing						
Quartermaster Buildings	10	10	10	10	10	10
Utility Buildings	47	47	47	47	47	47
Other						

PD is Percent Division from Base Year *En Conv is Population to PD + 100 Non-Residents

REMARKS

Louisiana AAP



U.S. Army ANALYSIS OF ENERGY CONSUMPTION

INSTALLATION JPMICANA AMP, LA

MACOM DAGO, PR

CLIMATIC REGION 7

MOD 2,332 CDD 2,631

UNITARY	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
1 Energy Consumption to PD	560,628	528,737	557,603	528,737	557,603	528,737	557,603	528,737	557,603	528,737	557,603	528,737	557,603	528,737	557,603	528,737
2 Thermal En Cons to PD	174,064	167,043	174,064	167,043	174,064	167,043	174,064	167,043	174,064	167,043	174,064	167,043	174,064	167,043	174,064	167,043
3 Electrical En Cons to PD	162,552	152,552	162,552	152,552	162,552	152,552	162,552	152,552	162,552	152,552	162,552	152,552	162,552	152,552	162,552	152,552
4 Resident Population to PD	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
5 Non Resident Population to PD	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020
6 Population Serviced to PD	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402
7 Effective Population to PD	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7	506.7
8 En Consumption/Pop Serviced to PD	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5	1,328.5
9 En Consumption/Pop to PD	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7
10 Electric En Consumption/Resident Population	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874
11 Installed Air Cond Capacity to PD	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920
12 Elec Energy/Ton of Air Cond to PD	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92
13 New Property Inventory, MPM to PD	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996	191,996
14 Ineffective Population	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312	126,312
15 Energy Consumption/GSP to PD	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629	55,629
16 Thermal En Consumption/GSP to PD	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417	18,417
17 Electrical En Consumption/GSP to PD	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654	60,654
18 MPM by Category																
Training	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Maintenance & Production	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Research, Development & Testing	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163
Storage																
Non Resident Support Personnel																
Other Contract Storage	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Hospital & Medical	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Administration																
Bedside Nursing	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
Communications	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
Communications Equipment	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
Family Housing																
Observational Burials	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Utility Buildings																
Other																

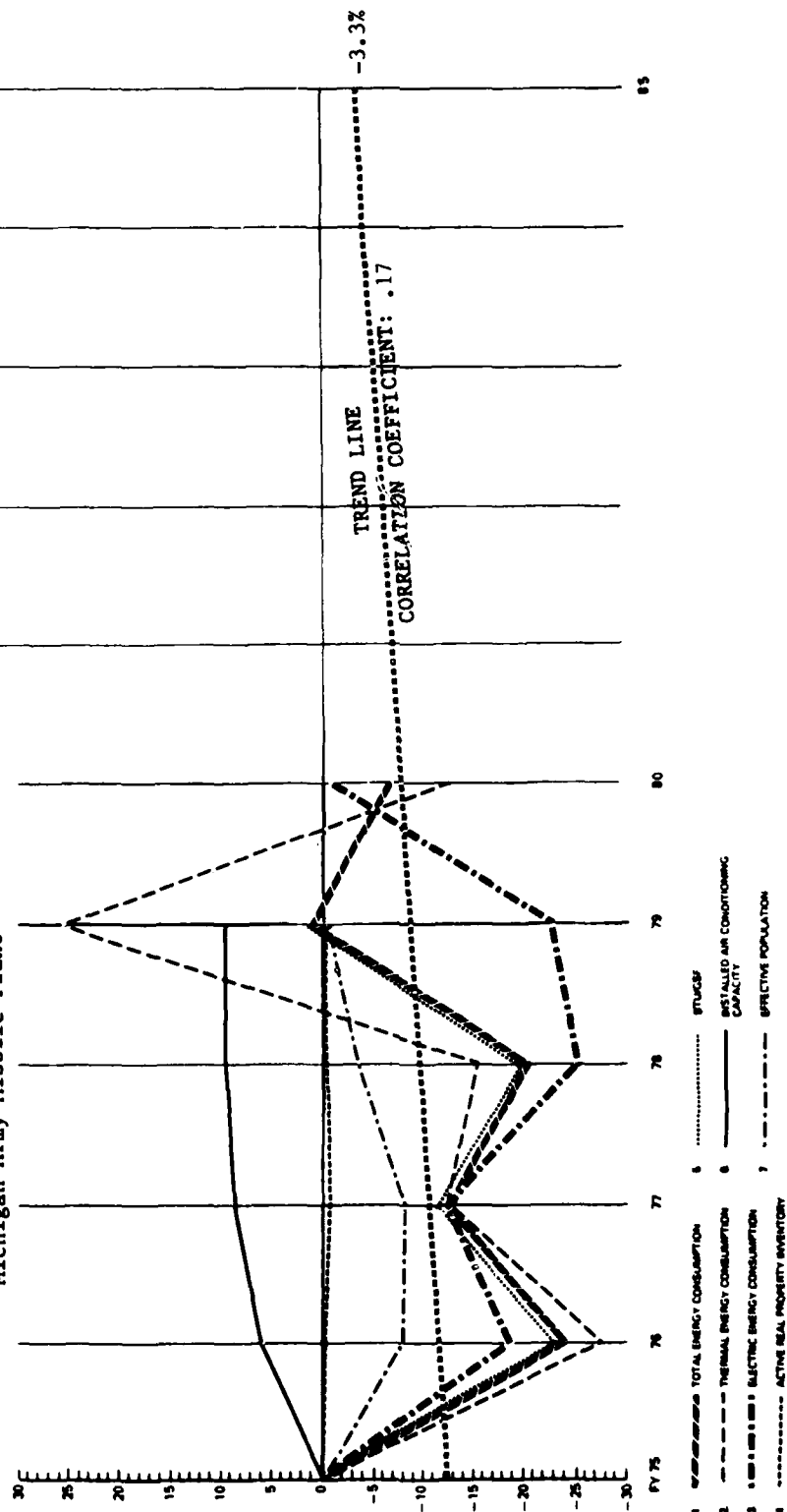
**PD is Percent Deviation from Base Year

**Population Served is the total Resident & Non-Resident Population

**GSP Pop is Resident + 1/3 Non-Resident

REMARKS

Michigan Army Missile Plant



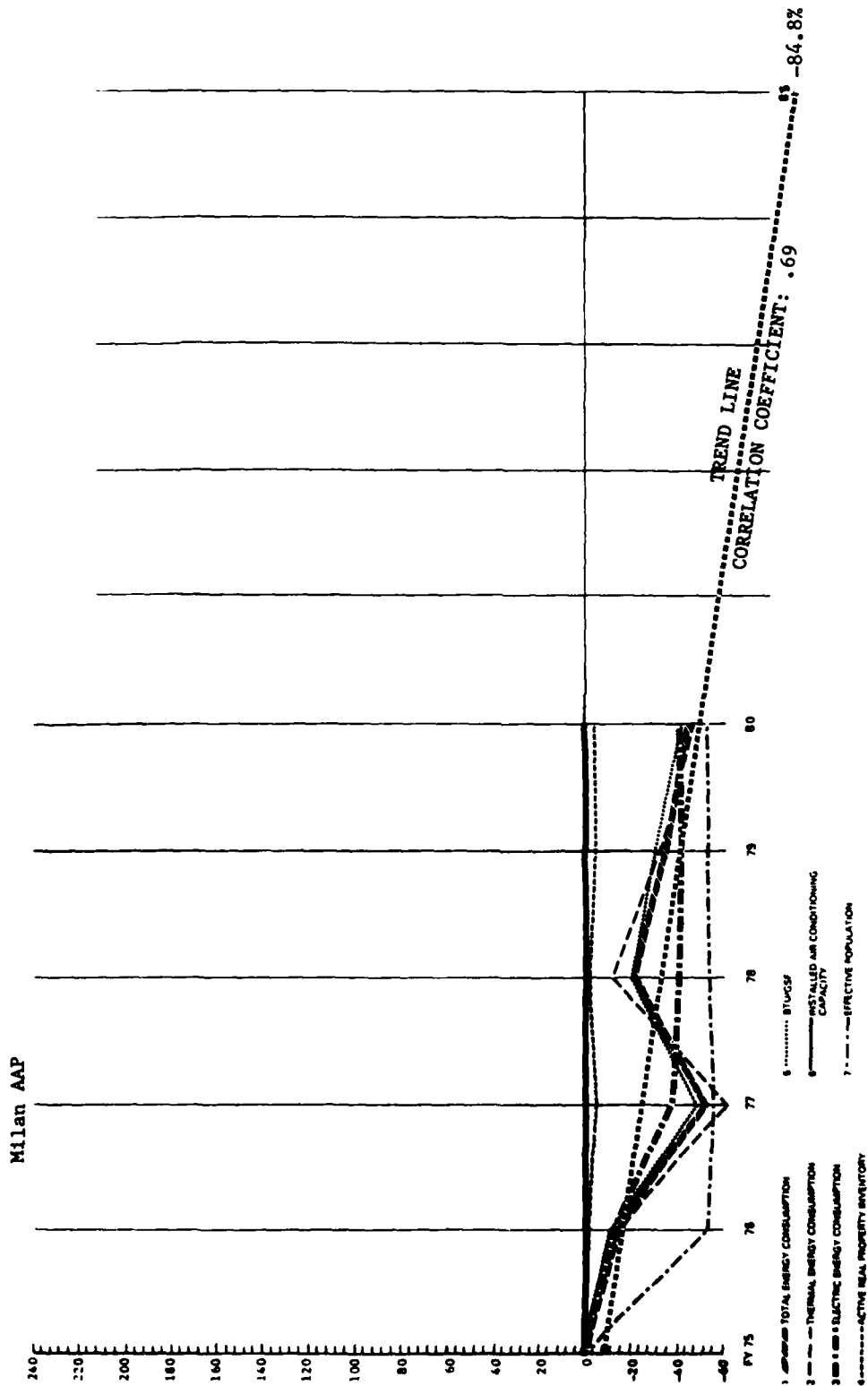
UNITS/ST	%	77	78	79	80	81	82	83	84	85	86	87	88	89	90
1 Energy Consumption & PD	762,578	584,601	668,692	607,764	772,543	711,699	711,699	711,699	711,699	711,699	711,699	711,699	711,699	711,699	711,699
2 Thermal En. Cons. & PD	381,289	274,763	316,346	322,115	478,977	433,725	433,725	433,725	433,725	433,725	433,725	433,725	433,725	433,725	433,725
3 Electrical En. Cons. & PD	381,289	309,838	352,346	285,649	293,566	277,974	277,974	277,974	277,974	277,974	277,974	277,974	277,974	277,974	277,974
4 Resident Population & PD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Non-Resident Population & PD	2,508	2,308	2,306	2,416	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487
6 Population Growth*** & PD	2,508	2,308	2,306	2,416	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487	2,487
7 Effective Population*** & PD	836	769	768	805	879	879	879	879	879	879	879	879	879	879	879
8 En. Consumption/Pop. Served & PD	304.1	253.3	290.0	251.6	310.6	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0
9 En. Consumption/Plt Pop & PD	912.2	760.2	872.7	755.0	911.9	831.9	831.9	831.9	831.9	831.9	831.9	831.9	831.9	831.9	831.9
10 Electric En. Consumption/Resident Population	1,714	1,819	1,880	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901
11 Installed Air Cond Capacity & PD	2,129.9	1,688.5	1,911.1	1,503.3	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4	1,544.4
12 Elec Energy/Ton of Air Cond & PD	2,163	2,163	2,145	2,161	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158
13 Real Property Inventory 1983 & PD	2,59	2,81	2,79	2,68	2,60	2,60	2,60	2,60	2,60	2,60	2,60	2,60	2,60	2,60	2,60
14 WPI/Effective Population	352,230	270,273	311,745	281,242	357,990	321,934	321,934	321,934	321,934	321,934	321,934	321,934	321,934	321,934	321,934
15 Energy Consumption/GSF & PD	176,115	127,029	155,872	137,184	165,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036
16 Thermal En. Consumption/GSF & PD	176,115	127,029	155,872	137,184	165,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036
17 Electrical En. Consumption/GSF & PD	176,115	127,029	155,872	137,184	165,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036	149,036
18 GFI by Category															
Training															
Maneuver & Production															
Research, Development & Testing															
Storage															
Other General Storage															
Hospital & Medical															
Administration															
Recreation															
Community Facilities															
Family Housing															
Unimproved Real Estate															
Utility Buildings															
Other															

***Populations Served is the Total Resident & Non-Resident Population

**PD is Percent Division from Base Year

***GSF Pop & Resident + 10 Non-Resident

REMARKS

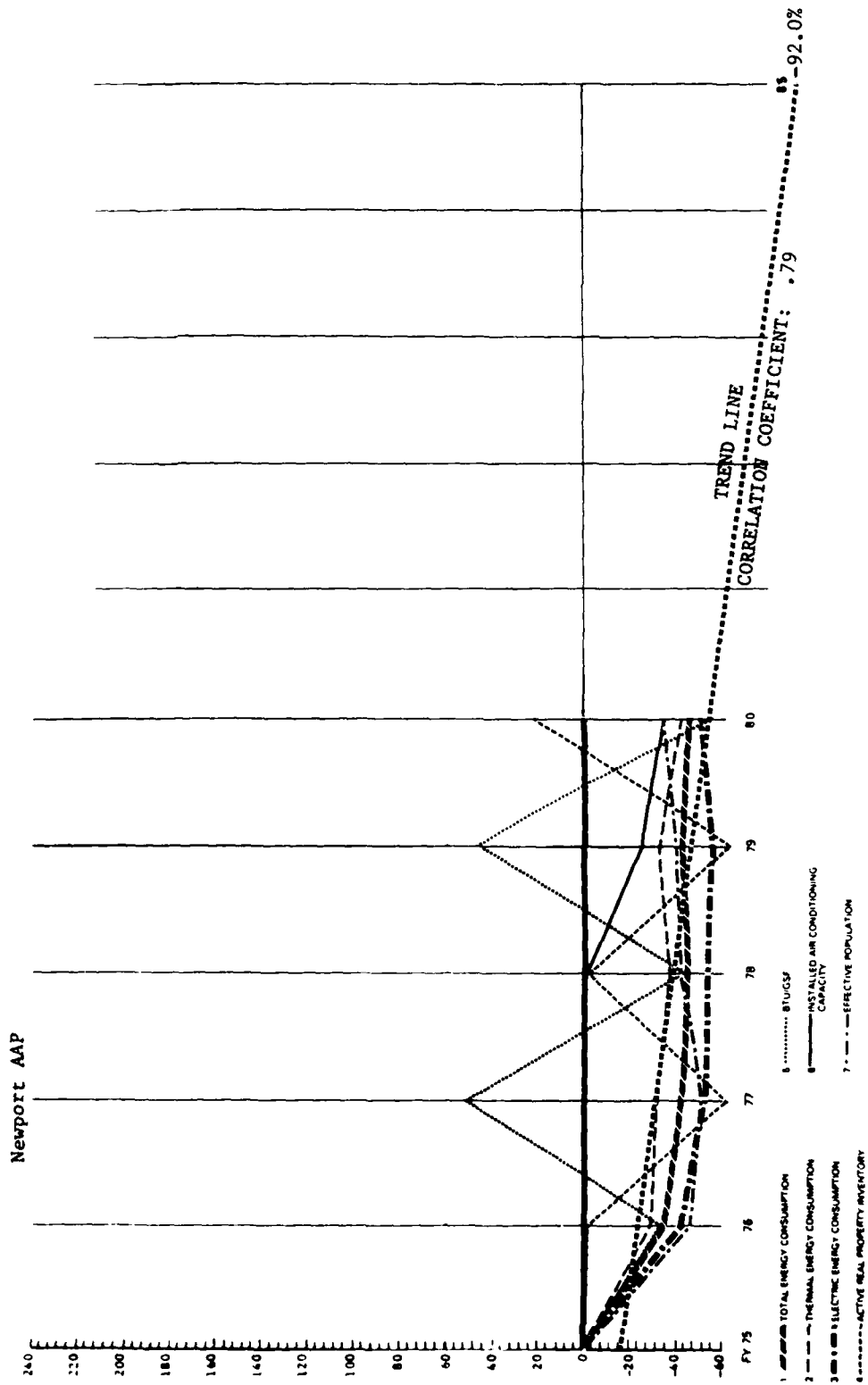


U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - MILAN AFB, TX - MACOM - 333001 - CLIMATIC REGION - 4 - HDD 3,485 CDD 1,632

UNIT/SP	75	76	77	78	79	80
1 Energy Consumption & PD	647,185	554,044	798,208	504,012	408,935	350,226
2 Thermal En Cons & PD	423,975	365,670	161,013	462,011	372,969	222,150
3 Electrical En Cons & PD	218,410	188,374	137,115	312,011	282,166	128,076
4 Resident Population & PD	115	111	101	81	88	107
5 Non Resident Population & PD	3,281	3,395	1,316	1,498	1,398	1,358
6 Population Saved** & PD	3,416	1,206	1,417	1,498	1,488	1,465
7 Effective Population*** & PD	1,229	576	540	553	554	560
8 En Consumption/Pop Saved & PD	188.1	367.9	210.5	336.5	275.2	239.1
9 En Consumption/Pop & PD	522.7	967.9	557.2	911.4	738.1	625.4
10 Electric En Consumption/Person & PD	1,617.9	1,697.1	1,358.2	1,617.8	1,440.6	1,197.0
11 Resident Air Cond Capacity & PD	-	-	-	-	840	994
12 Elec Energy/Ton of Air Cond & PD	3,684	3,668	3,466	3,663	3,476	3,520
13 Real Property Inventory (RPI) & PD	3,00	6,37	6,42	1,124.11	1,209.9	1,099.7
14 Real Property Inventory (RPI) & PD	174,372	151,048	86,038	137,595	117,645	99,496
15 Energy Consumption/GSF & PD	115,086	99,692	48,461	101,821	81,175	63,111
16 Thermal En Consumption/GSF & PD	59,286	51,356	24,377	63,774	46,470	36,385
17 Electrical En Consumption/GSF & PD	-	-	-	-	-	-
18 RPI by Category						
Training	-	-	-	-	-	-
Maintenance & Production	870	866	689	863	711	661
Research, Development & Testing	-	-	-	-	-	-
Storage	2,474	2,471	2,358	2,361	2,356	2,417
Other General Storage	-	-	-	-	-	-
Housing & Medical	8	8	108	107	106	137
Administration	111	111	109	111	100	100
Bachelor Housing	60	55	54	55	44	44
Community Ties Room	85	85	85	85	85	85
Family Housing	31	36	29	37	29	29
Chapel/Religious Bldg	-	-	-	-	-	-
Utility Buildings	76	28	18	28	19	25
Other	-	-	11	-	10	6

PD is Percent Deviation from Base Year **Population Saved is the total Residents & Non-Resident Population *EEI Per Person + 1/2 Non-Resident

REMARKS



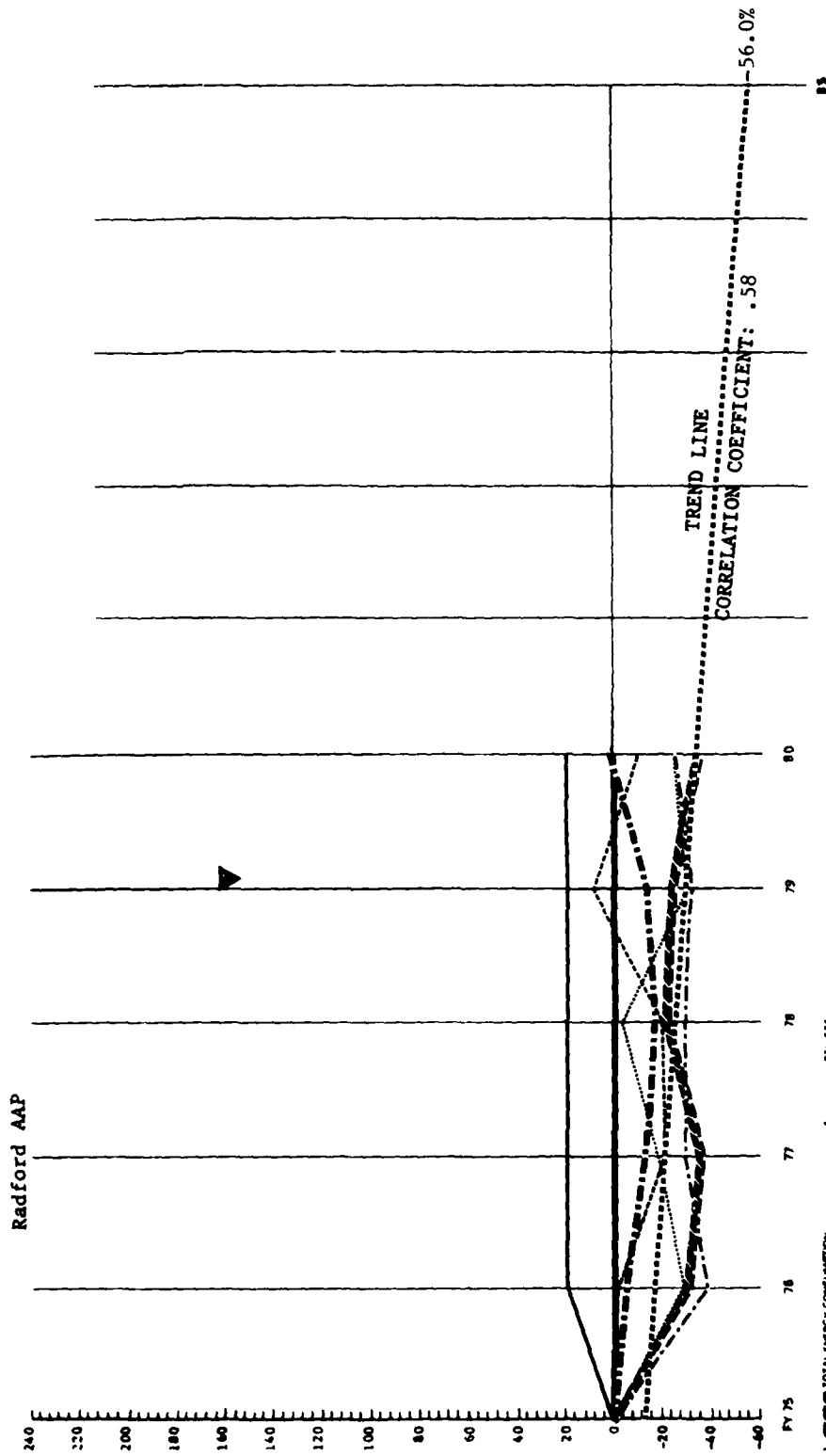
UNIT/STY	75	76	77	78	79	80
HEATU	387,116	186,687	166,940	156,775	145,246	132,294
HEATU	137,914	112,071	106,816	98,769	91,379	84,428
HEATU	129,202	74,614	60,116	58,006	55,118	52,118
PEOPLE	0	0	0	0	0	0
PEOPLE	612	217	194	241	247	248
PEOPLE	612	217	194	241	247	248
PEOPLE	137	72	65	80	82	89
PEOPLE	636.9	860.3	860.3	650.5	636.7	572.5
HEATU/CAF	2,095.7	2,592.9	2,569.1	1,959.7	1,978.1	1,711.2
HEATU/CAF	657	457	457	457	457	457
HEATU/CAF	282.7	163.4	131.5	126.9	118.5	110.0
HEATU/CAF	1,383	1,378	1,371	1,371	1,371	1,371
HEATU/CAF	10,109	19,114	8,118	17,114	17,114	17,114
HEATU/CAF	207,804	135,477	313,891	114,351	301,491	18,791
HEATU/CAF	116,182	81,287	200,891	72,042	139,970	91,085
HEATU/CAF	93,472	54,190	113,000	42,109	105,321	54,037
HEATU/CAF	563	563	102	586	102	451
HEATU/CAF	11	11	13	85	13	84
HEATU/CAF	362	362	250	257	250	402
HEATU/CAF	12	12	45	25	45	75
HEATU/CAF	78	78	2	26	2	3
HEATU/CAF	26	26	2	26	2	3
HEATU/CAF	1	1	1	1	1	1
HEATU/CAF	368	368	120	317	120	94
HEATU/CAF	375	375	6	375	6	555

1 Energy Consumption is PD
 2 Thermal En Cons is PD
 3 Electrical En Cons is PD
 4 Residential En Cons is PD
 5 Non-Residential Population is PD
 6 Population Saved is PD
 7 Electric Population is PD
 8 En Consumption is PD
 9 En Consumption is PD
 10 Electric En Consumption is PD
 11 Installed Air Cond Capacity is PD
 12 Elec Energy/Fan of Air Cond is PD
 13 Heat Property Inventory is PD
 14 Heat Property Inventory is PD
 15 Energy Consumption is PD
 16 Thermal En Consumption is PD
 17 Electrical En Consumption is PD
 18 All for Category

Training
 Maintenance & Production
 Research, Development & Testing
 Storage
 Other Covered Storage
 Hospital & Medical
 Administration
 Bachelor Housing
 Community Fire Base
 Family Housing
 Operational Buildings
 Utility Buildings
 Other

*PD is Percent Deviation from Base Year **Population Saved is the Total Population & Non-Residential Population ***En Cons is Residual & 10 Non-Residential

REMARKS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - BARBERS PT, LA MACOM, DAGECCL CLIMATIC REGION 3 HDD 4,680 CDD 225

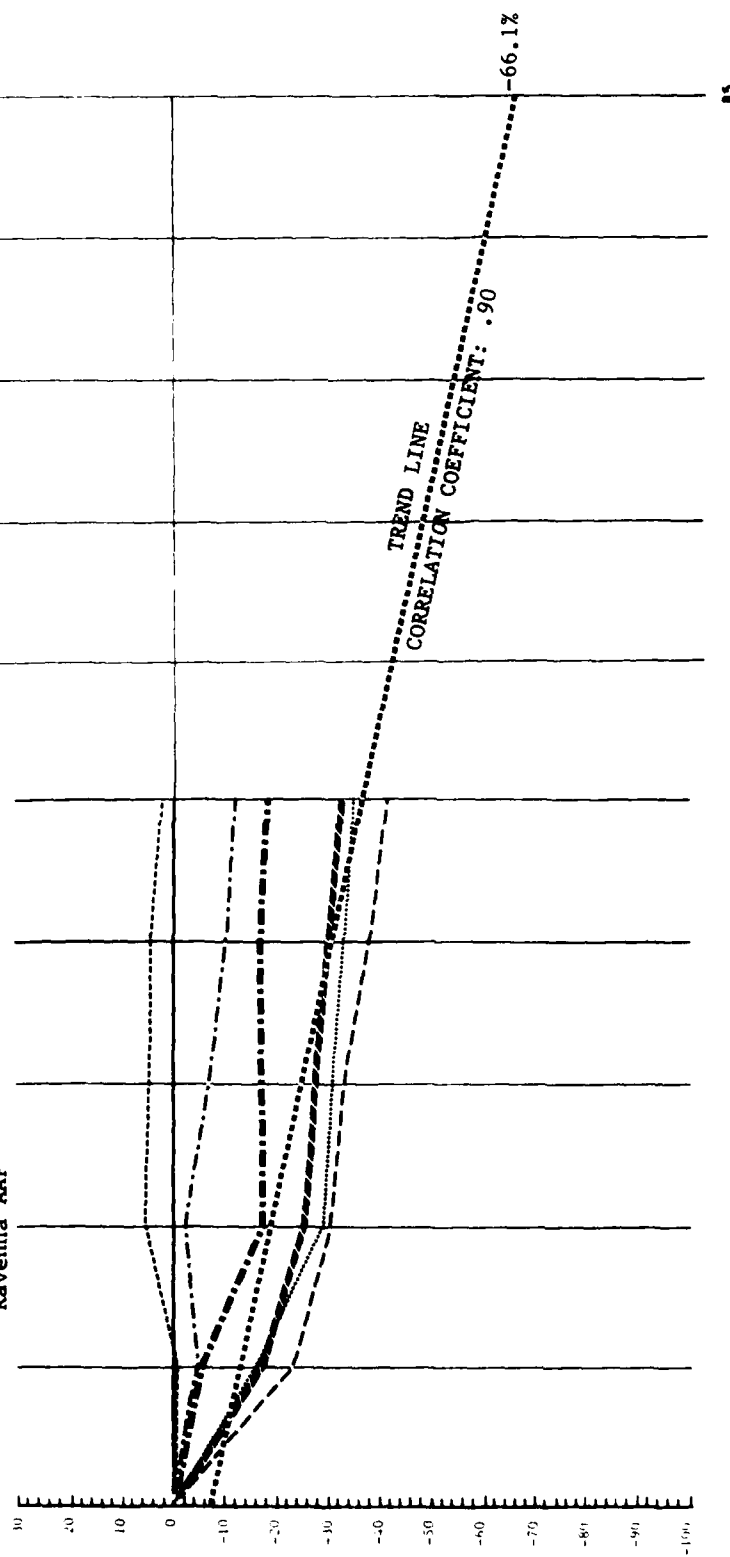
UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	5,206,219	1,596,565	1,319,362	1,361,411	1,882,764	1,382,254
2 Thermal En Cons & PD	4,908,100	1,118,550	1,074,400	1,074,411	1,467,900	1,088,050
3 Electrical En Cons & PD	298,619	278,115	244,962	287,000	254,864	299,204
4 Resident Population & PD	71	63	77	58	59	62
5 Non Resident Population & PD	4,096	2,441	2,701	2,828	2,673	3,014
6 Population Served*** & PD	4,167	2,502	2,778	2,886	2,732	3,076
7 Effective Population*** & PD	1,438	883	1,002	1,001	950	1,083
8 En Consumption/Pop Served & PD	1,249.5	1,431.0	1,162.9	1,193.5	1,421.2	1,098.7
9 En Consumption/Pop Served & PD	1,620.8	1,820.9	1,424.1	1,427.7	1,501.1	1,553.9
10 En Consumption/Pop Served & PD	4,090.7	4,001.7	3,322.7	3,242.0	3,319.7	4,336.7
11 Installed Air Cond Capacity & PD	1,260	1,501	1,501	1,501	1,501	1,501
12 Elec Energy/Pop of Air Cond & PD	237.0	183.9	162.6	162.6	169.8	199.4
13 Heat Property Inventory BHP & PD	3,453	3,440	2,716	2,765	3,761	3,030
14 HPI/En Cons & PD	2.40	3.90	2.71	2.76	3.94	3.63
15 En Consumption/GSF & PD	1,507,883	1,044,932	1,225,833	1,454,525	1,037,894	1,112,916
16 Thermal En Consumption/GSF & PD	1,421,402	984,666	1,132,106	1,365,543	969,767	1,039,138
17 Electrical En Consumption/GSF & PD	86,481	80,266	93,727	88,982	68,127	73,778
18 HPI by Category						
Training						
Maintenance & Production	1,879	1,868	1,229	1,233	1,356	1,342
Research, Development & Testing						
Storage	882	871	481	481	485	479
Other General Storage						
Hospital & Medical	9	9	9	9	9	9
Administration	319	366	302	302	400	299
Bachelor Housing	201	28	65	65	75	62
Community Fair Area	501	501	501	501	501	501
Family Housing	5	21	18	18	1,843	18
Operational Bldg	222	172	191	198	162	203
Utility Buildings						
Other						

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population ***En Cons & PD is Resident + 1/3 Non-Resident

FY 79 ECIP - Condensate Return Lines - \$206,000 - Completed October 1979

REMARKS

Ravenna AAP



A-208

UNIT/SPY	PD	PD	PD	PD	PD	PD	PD	PD	PD
UNITU	127,932	1,096,001	1,214,111	95,121	1,255,611	97,274	1,272,511	89,098	1,310,111
UNITU	81,827	62,532	1,222,411	57,073	1,203,111	55,274	1,212,111	50,746	1,211,111
UNITU	36,025	34,161	1,256,611	18,038	1,272,111	18,070	1,272,111	38,212	1,272,111
PEOPLE	61	62	1,256,611	70	1,256,611	71	1,256,611	66	1,256,611
PEOPLE	290	250	1,213,811	251	1,213,811	227	1,213,811	228	1,213,811
PEOPLE	151	132	1,256,611	132	1,256,611	142	1,256,611	142	1,256,611
PEOPLE	152	152	1,256,611	154	1,256,611	162	1,256,611	162	1,256,611
UNITUCAP	362,5	332,5	1,256,611	296,3	1,256,611	311,2	1,256,611	303,1	1,256,611
UNITUCAP	509,7	706,2	1,256,611	612,2	1,256,611	610,8	1,256,611	622,5	1,256,611
UNITUCAP	755	648,2	1,256,611	543,5	1,256,611	533,5	1,256,611	580,5	1,256,611
TONS	-	-	1,256,611	-	1,256,611	-	1,256,611	-	1,256,611
UNITUCAP	-	-	1,256,611	-	1,256,611	-	1,256,611	-	1,256,611
UNITUCAP	3,131	3,131	1,256,611	3,551	1,256,611	4,536	1,256,611	4,527	1,256,611
UNITUCAP	27,37	28,79	1,256,611	29,55	1,256,611	30,82	1,256,611	31,88	1,256,611
UNITUCAP	29,477	24,549	1,256,611	20,001	1,256,611	20,457	1,256,611	19,681	1,256,611
UNITUCAP	18,866	15,861	1,256,611	12,511	1,256,611	12,067	1,256,611	11,218	1,256,611
UNITUCAP	10,611	10,085	1,256,611	8,160	1,256,611	8,386	1,256,611	8,463	1,256,611
UNITUCAP	-	-	1,256,611	-	1,256,611	-	1,256,611	-	1,256,611
UNITUCAP	1,416	1,411	1,256,611	1,571	1,256,611	1,572	1,256,611	1,572	1,256,611
UNITUCAP	2,166	2,151	1,256,611	2,142	1,256,611	2,142	1,256,611	2,142	1,256,611
UNITUCAP	1,4	1,4	1,256,611	1,4	1,256,611	1,4	1,256,611	1,4	1,256,611
UNITUCAP	95	95	1,256,611	135	1,256,611	135	1,256,611	135	1,256,611
UNITUCAP	37	37	1,256,611	37	1,256,611	37	1,256,611	37	1,256,611
UNITUCAP	62	62	1,256,611	62	1,256,611	62	1,256,611	62	1,256,611
UNITUCAP	31	31	1,256,611	31	1,256,611	31	1,256,611	31	1,256,611
UNITUCAP	34	34	1,256,611	37	1,256,611	37	1,256,611	37	1,256,611
UNITUCAP	57	57	1,256,611	60	1,256,611	58	1,256,611	58	1,256,611
UNITUCAP	57	57	1,256,611	57	1,256,611	57	1,256,611	57	1,256,611

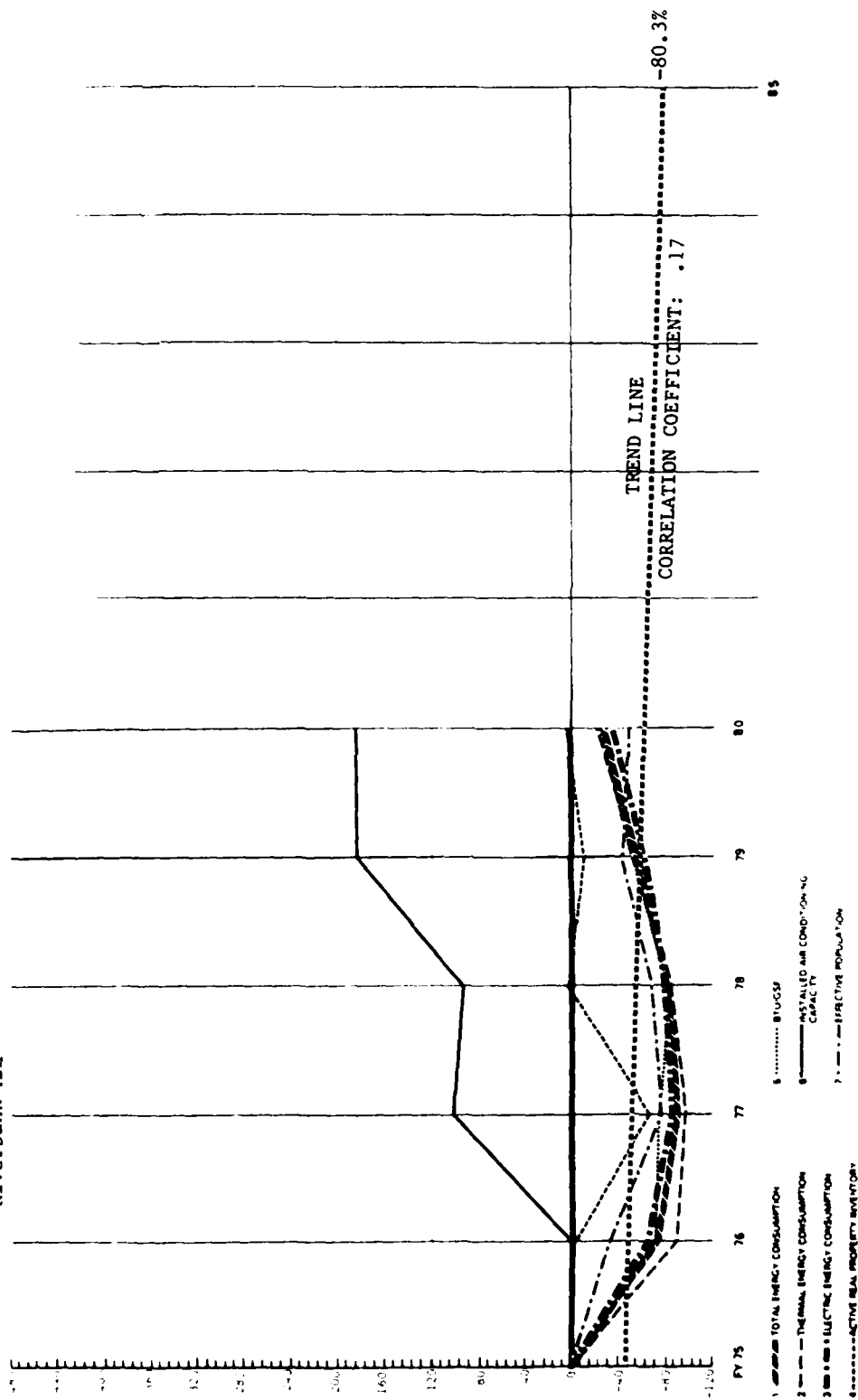
PD is Percent Deviation from Base Year **1981 Pop is Resident & Non-Resident Population

- 1 Energy Consumption & PD
- 2 Thermal En Cons & PD
- 3 Electrical En Cons & PD
- 4 Residential Population & PD
- 5 Non-Residential Population & PD
- 6 Population Growth & PD
- 7 Effective Population & PD
- 8 En Consumption/Pop Served & PD
- 9 En Consumption/H Pop & PD
- 10 Electric En Consumption/Resident Population
- 11 Installed Air Cond Capacity & PD
- 12 Electric Energy/Pop of Air Cond & PD
- 13 Heat Property Inventory & PD
- 14 Industrial Population
- 15 Electric Consumption/GSF & PD
- 16 Thermal En Consumption/GSF & PD
- 17 Electrical En Consumption/GSF & PD
- 18 Btu by Category

Training
Maintenance & Production
Research, Development & Training
Storage
Other Contracted Storage
Hospital & Medical
Administration
Bachelor Housing
Community Facilities
Family Housing
Operational Buildings
Other

REMARKS

Riverbank AAP



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION BUTTERBURY AND, GA. MACOM DIVISION CLIMATIC REGION 4 HDD 2,762 CDD 1,566

UNITS/STAFF	75	76	77	78	79	80
1 Energy Consumption - B PD	13,114	92,460	1,023,311	59,570	1,082,531	237,971
2 Thermal En Cons - B PD	16,152	1,164	1,023,311	1,023,311	1,023,311	1,023,311
3 Electrical En Cons - B PD	217,162	1,164	1,023,311	1,023,311	1,023,311	1,023,311
4 Resident Population - B PD	0	0	0	0	0	0
5 Non-Resident Population - B PD	550	321	1,023,311	1,023,311	1,023,311	1,023,311
6 Population Served** - B PD	250	321	1,023,311	1,023,311	1,023,311	1,023,311
7 Effective Population*** - B PD	124	124	1,023,311	1,023,311	1,023,311	1,023,311
8 En Consumption/Pop Served - B PD	607.24	248.4	1,023,311	1,023,311	1,023,311	1,023,311
9 En Consumption/Pop - B PD	1,276.9	747.3	1,023,311	1,023,311	1,023,311	1,023,311
10 Electric En Consumption/Resident Population	-	-	-	-	-	-
11 Installed Air Cond Capacity - B PD	29	-	-	-	-	-
12 Elec Energy/Ton of Air Cond - B PD	1,184.9	-	-	-	-	-
13 Real Property Inventory (RPI) - B PD	793	-	-	-	-	-
14 RPI/Ingress Population	6.33	-	-	-	-	-
15 Energy Consumption/GSF - B PD	421,581	116,859	1,023,311	1,023,311	1,023,311	1,023,311
16 Thermal En Consumption/GSF - B PD	122,260	12,855	1,023,311	1,023,311	1,023,311	1,023,311
17 Electrical En Consumption/GSF - B PD	299,321	104,004	1,023,311	1,023,311	1,023,311	1,023,311
18 BPI by Category	-	-	-	-	-	-
Training	-	-	-	-	-	-
Maintenance & Production	529	599	51	603	505	606
Research, Development & Testing	-	-	-	-	-	-
Storage	56	-	-	-	-	-
Other Central Storage	-	-	-	-	-	-
Hospital & Medical	11	11	11	11	11	11
Administration	12	12	12	12	12	12
Residence Housing	-	-	-	-	-	-
Community Facilities	13	13	13	13	13	13
Family Housing	-	-	-	-	-	-
Quartermaster Buildings	2	-	-	-	-	-
Utility Buildings	102	102	102	102	102	102
Other	-	-	-	-	-	-

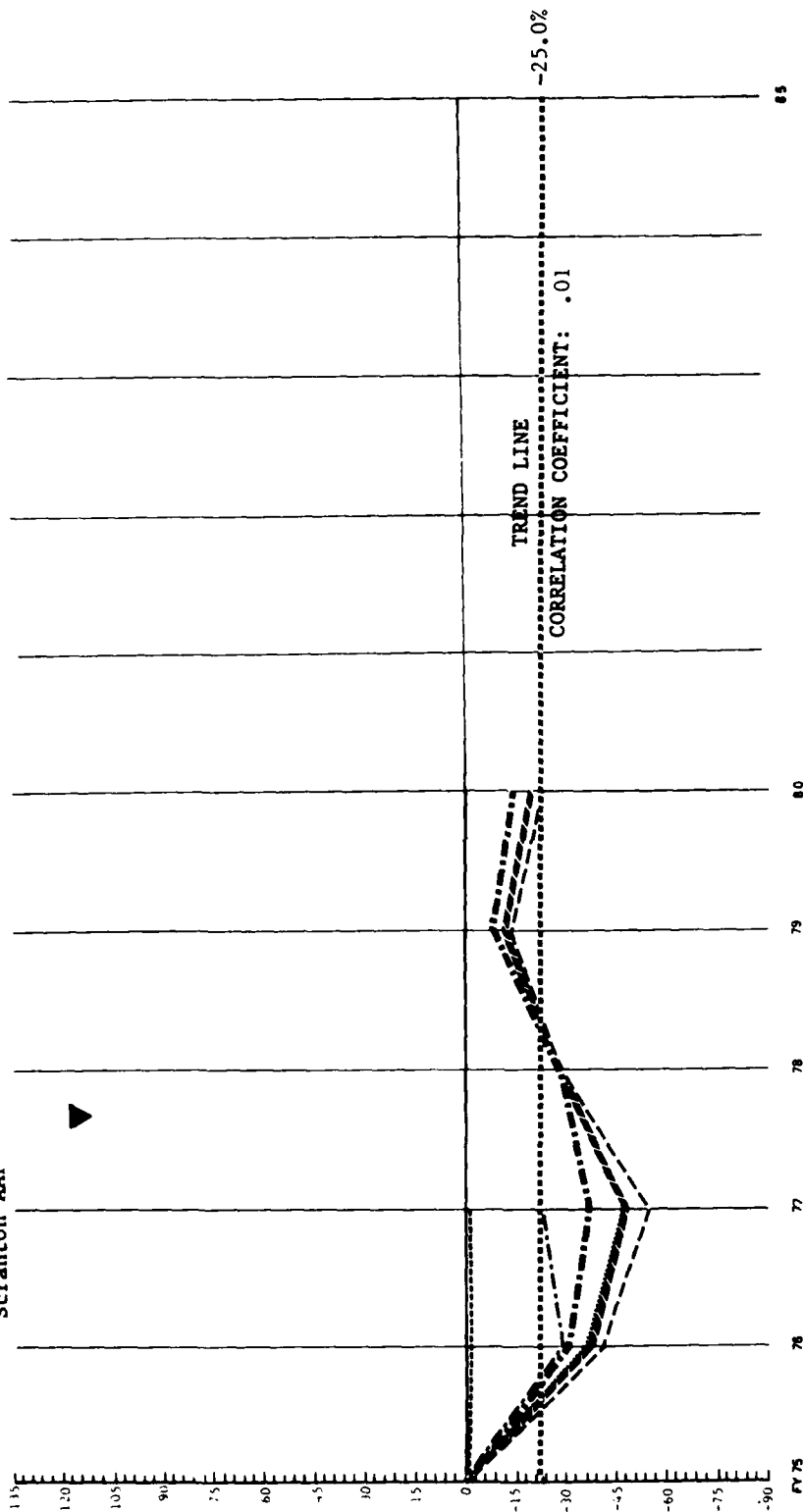
**Population Served & non-Resident Population

**BPI in Percent Division from Base Year

**BPI Pop in Residents & 1/2 Non-Resident

REMARKS

Scranton AAP



1 - TOTAL ENERGY CONSUMPTION
2 - THERMAL ENERGY CONSUMPTION
3 - ELECTRIC ENERGY CONSUMPTION
4 - ACTIVE REAL PROPERTY INVENTORY
5 - STUGGS
6 - INSTALLED AIR CONDITIONING CAPACITY
7 - EFFECTIVE POPULATION
▼ FY 77 ECIP - Insulation - 5162,000 - Completed (estimated) June 1978

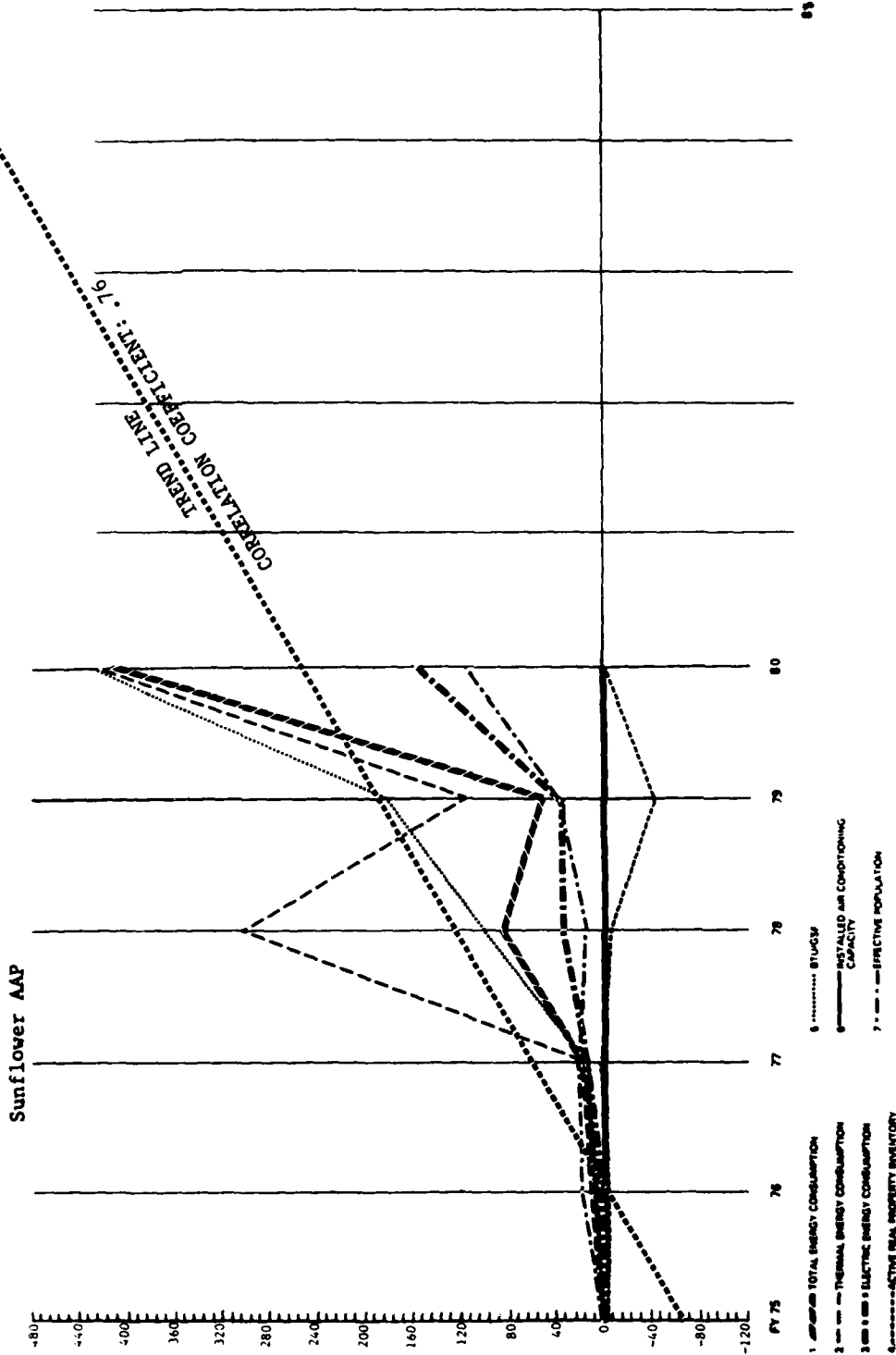
22

[illegible]

APD is Average Deviation from Base Yield

(Installation did not submit reports for FY78 - FY79 or FY80.

574.5%



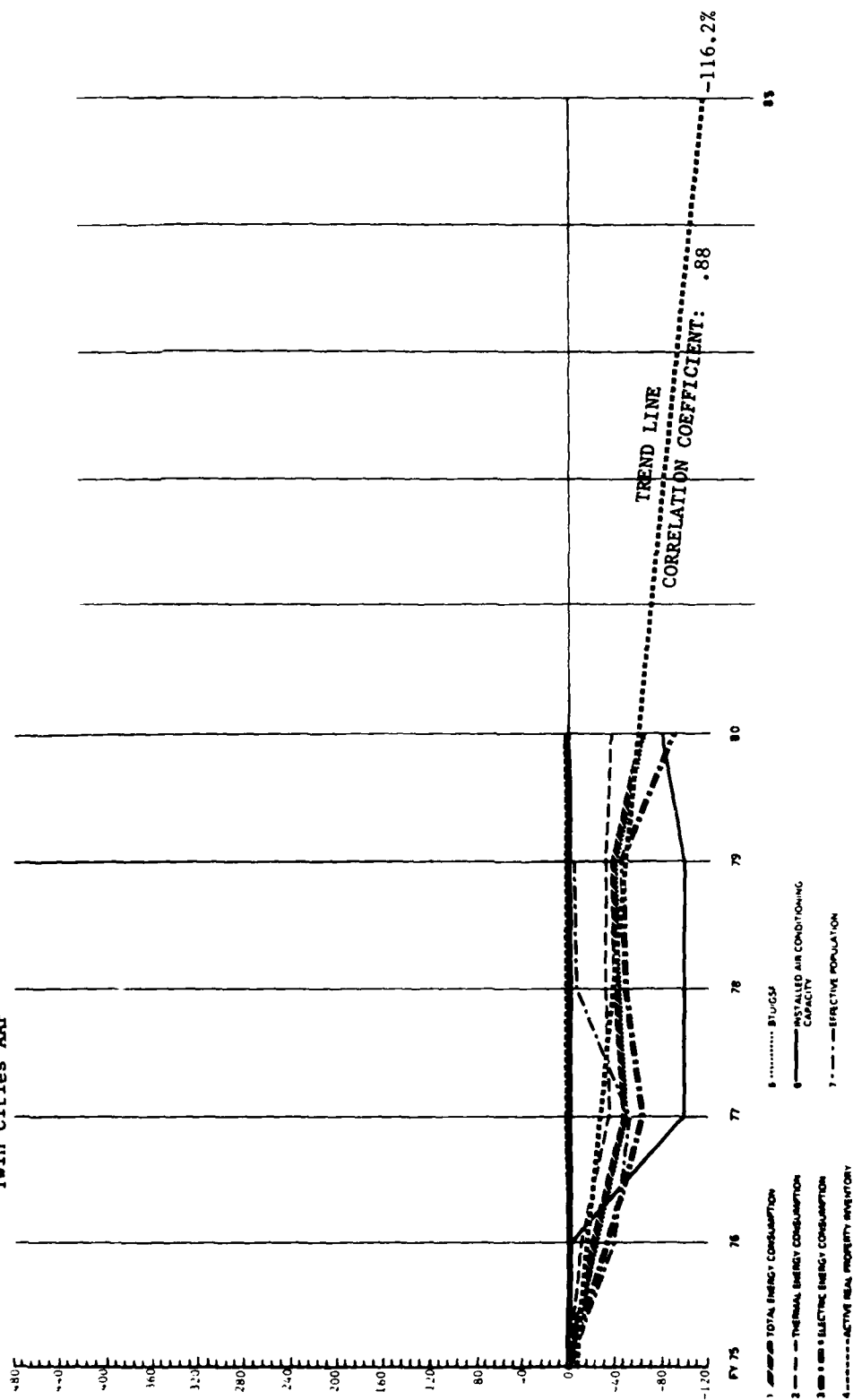
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION SUNT GUER JAR, FS MACOM DAFOM CLIMATIC REGION 3 HDD 5,030 CDD 1,370

UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	115,958	121,488	135,480	136,811	173,602	188,518
2 Thermal En Cons & PD	21,142	25,911	27,006	16,811	50,365	132,400
3 Electrical En Cons & PD	92,766	95,553	108,474	16,811	123,237	236,118
4 Resident Population & PD	20	16	11	135	0	0
5 Non-Resident Population & PD	198	243	277	300	349	548
6 Population Density*** & PD	218	269	290	300	349	548
7 Electric Population*** & PD	86	106	105	100	116	183
8 En Consumption/Pop Served & PD	531.9	442.6	467.2	75.6	497.4	1,071.9
9 En Consumption/Pop & PD	1,368.3	1,182.4	1,290.3	2,176.7	1,496.6	3,215.9
10 Electric En Consumption/Resident Population	6,638.3	6,097.2	8,337.2	1,793.1	1,496.6	3,215.9
11 Installed Air Cond Capacity & PD	-	-	-	-	214	214
12 Elec Energy/Ton of Air Cond & PD	1,736	1,714	1,761	1,011	575.9	1,103.4
13 Real Property Inventory (RPI) & PD	61.67	33.71	35.82	35.43	17.32	19.32
14 gpm/Hectare Population	10,873	11,249	12,022	16,711	86,432	161,415
15 Energy Consumption/GSF & PD	6,175	6,982	7,204	16,711	25,060	422,811
16 Thermal En Consumption/GSF & PD	2,468	2,667	2,818	16,711	61,352	98,656
17 Electrical En Consumption/GSF & PD	-	-	-	-	-	-
18 RPI per Category	-	-	-	-	-	-
Training	2,464	2,393	2,458	2,292	1,356	2,435
Administration & Production	-	-	-	-	-	-
Research, Development & Testing	-	-	-	-	-	-
Storage	216	786	296	96	118	220
Other Covered Storage	-	-	-	-	-	-
Hospital & Medical	16	16	13	13	13	12
Administration	183	183	187	186	100	186
Bachelor Housing	-	-	-	-	-	-
Community Facilities	76	76	79	77	-	85
Family Housing	10	10	10	10	-	-
Operational Buildings	6	16	16	13	-	13
Utility Buildings	223	212	212	178	139	226
Other	-	-	-	-	-	-

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *RPI Pop is Resident + 1/3 Non-Resident

REMARKS

Twin Cities AAP



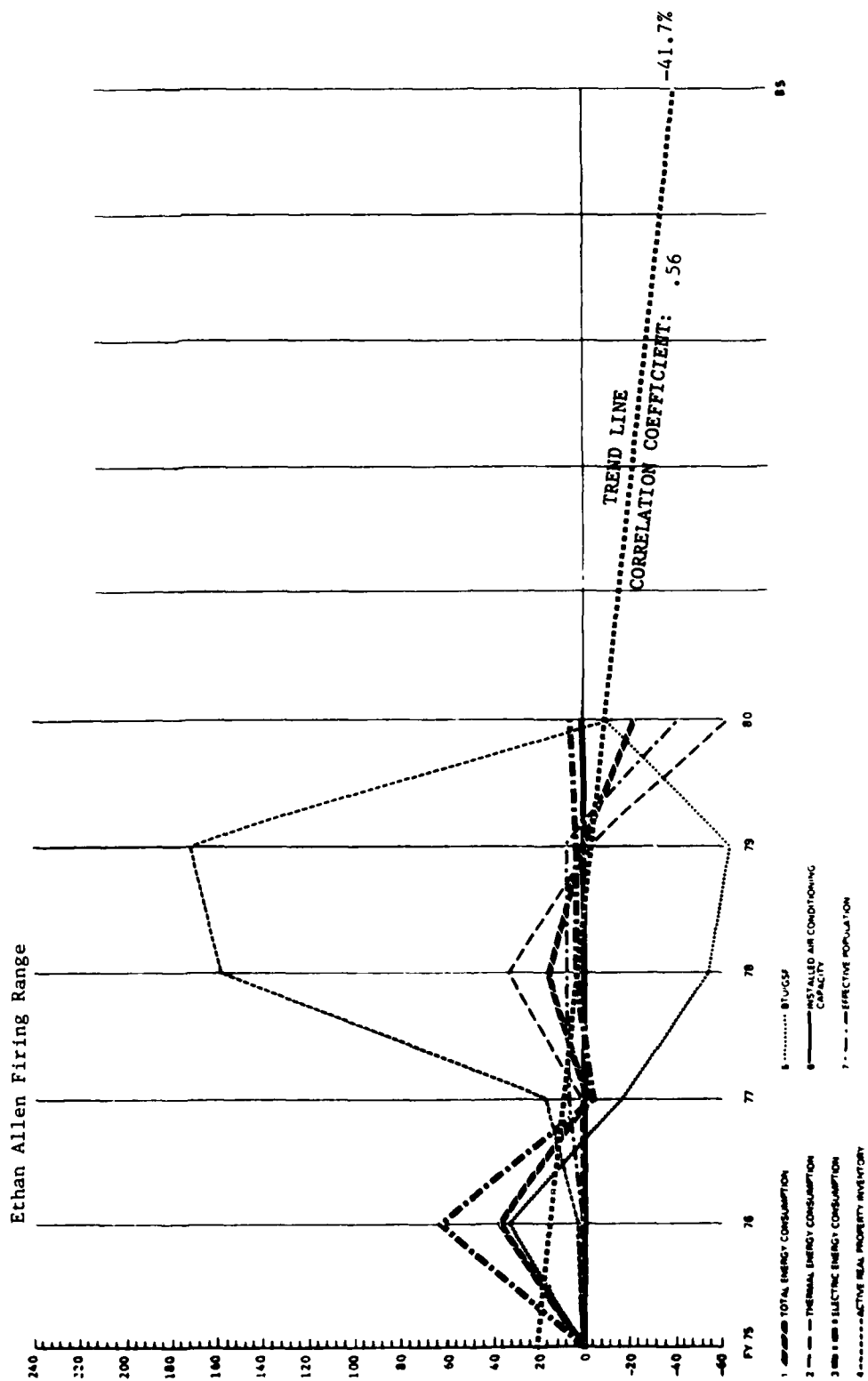
UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	1,408,162	1,093,350	712,067	839,591	1,470,411	840,980
2 Thermal En Cons & PD	725,635	656,956	477,083	503,755	1,372,511	696,185
3 Electrical En Cons & PD	682,527	436,394	234,984	335,836	1,097,900	144,795
4 Resident Population & PD	50	60	51	67	134,011	55
5 Non Resident Population & PD	2,067	1,130	943	1,963	1,541	1,936
6 Population Services** & PD	2,092	1,130	943	1,963	1,541	1,936
7 Effective Population*** & PD	732	1,130	943	1,963	1,541	1,936
8 En Consumption/Pop Served & PD	671.6	806.8	717.8	821.9	1,372.5	251.7
9 En Consumption/Pop & PD	1,976.0	2,451.2	1,950.9	2,708.0	1,372.5	1,998.0
10 Electric En Consumption/Pop & PD	1,323.6	2,288.6	1,444.9	2,145.4	1,372.5	1,998.0
11 Installed Air Cond Capacity & PD	216	214	100	100	100	100
12 Electric En Cons of Air Cond & PD	3,093.1	2,063.5	1,133.9	1,462	1,911	274.3
13 Heat Pumping Capacity (Btu) & PD	4,376	4,177	2,707	4,383	1,000	4,461
14 Ineffective Population	5,99	9,81	12,00	12,00	6,35	6,35
15 Health Consumption/GSP & PD	321,839	249,773	167,460	188,165	1,414.1	188,520
16 Thermal En Consumption/GSP & PD	170,575	140,866	108,849	132,899	1,331.81	111,227
17 Electrical En Consumption/GSP & PD	151,264	99,909	58,611	55,266	1,502.1	77,293
18 Btu by Category						
Training						
Maintenance & Production	3,489	3,487	3,485	3,574	3,630	3,610
Research, Development & Training	39	39	39	39	48	48
Storage	616	613	616	616	96	96
Other Coupled Storage						
Vehicular to Medical						
Administrative						
Bachelor Housing	130	135	135	135	125	125
Community Fe Bldg						
Family Housing	6	8	8	8	8	8
Officer's Quarters	32	32	32	32	32	32
Utility Buildings	2	2	2	2	2	2
Other	64	57	59	59	58	58
Total Available	BASE	0				

**Population Served is the total Resident & Non-Resident Population

**PD is Percent Deviation from Base Year

***En Cons & PD is Resident & Non-Resident

REMARKS



A-218

U S Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - INTERMEDIATE FIRING RANGE, VT MACOM DARTMOUTH CLIMATIC REGION 1 HDD 7,876 CDD 332

ETHAN ALLEN FIRING RANGE, VT (Renamed in FY 77)

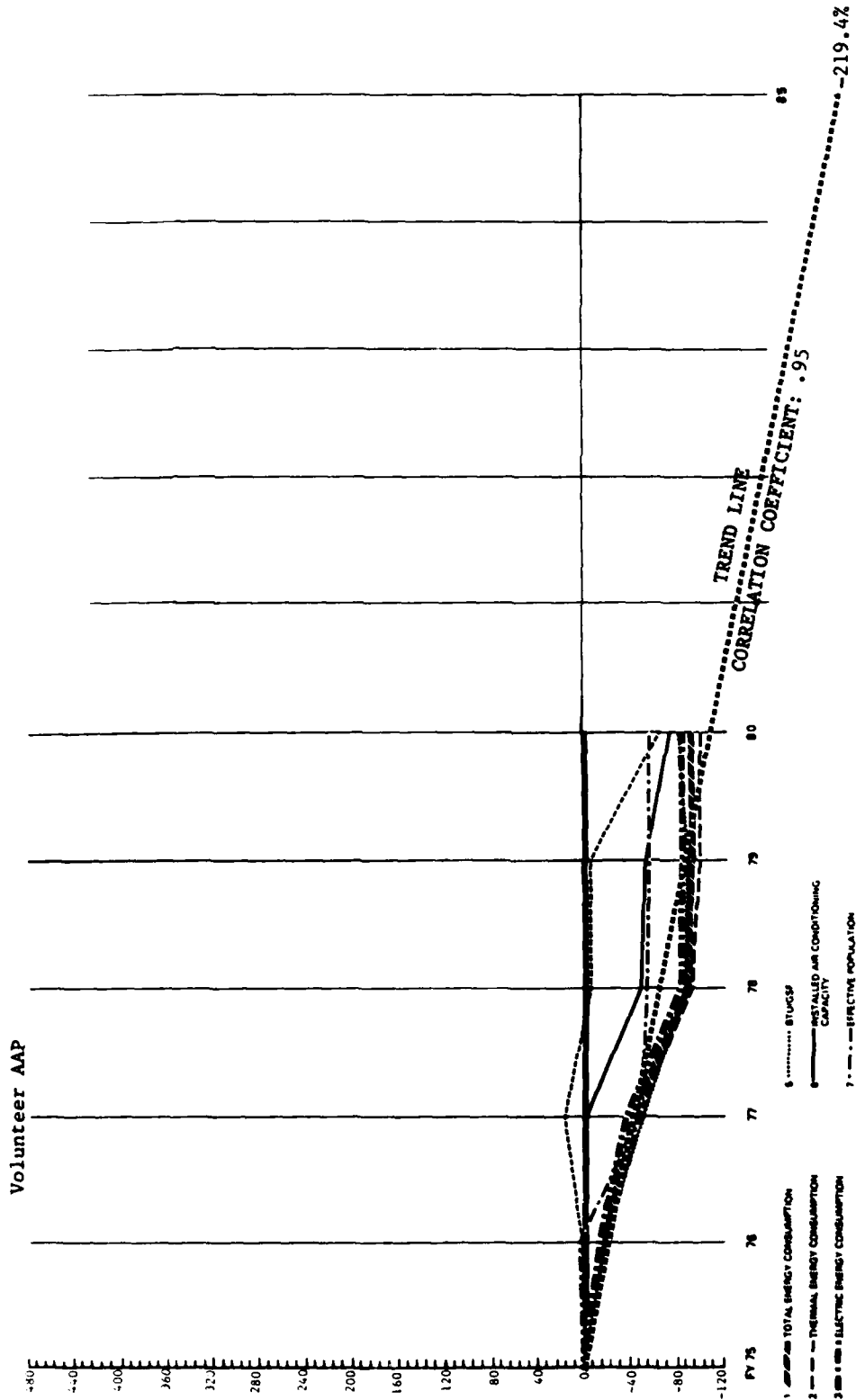
UNIT/STAFF	75	76	77	78	79	80
1 Energy Consumption & PD	8,571	11,298	13,761	15,771	18,470	21,247
2 Thermal En Core & PD	3,515	3,540	3,711	3,920	4,163	4,441
3 Electrical En Core & PD	5,056	7,758	10,050	12,551	14,307	16,806
4 Resident Population & PD	0	0	0	0	0	0
5 Non-Resident Population & PD	62	62	62	62	62	62
6 Population Services*** & PD	52	52	52	52	52	52
7 Hostage Population*** & PD	16	16	16	16	16	16
8 En Consumption/Pop Servs & PD	204.1	280.9	37.61	187.3	220.4	271.0
9 En Consumption/Pop Servs & PD	612.4	847.7	1,376.1	1,716.3	2,056.5	2,396.7
10 En Consumption/Pop Servs & PD	6	6	6	6	6	6
11 Thermal En Core Capacity & PD	843	1,316.1	1,631.1	1,946.1	2,261.1	2,576.1
12 Thermal En Core Capacity & PD	16	16	16	16	16	16
13 Thermal En Core Capacity & PD	2,43	2,43	2,43	2,43	2,43	2,43
14 Indirective Population	252,187	317,086	381,985	446,884	511,783	576,682
15 Energy Consumption/GSF & PD	102,382	131,123	159,864	188,605	217,346	246,087
16 Thermal En Consumption/GSF & PD	104,145	132,886	161,627	190,368	219,109	247,850
17 Electrical En Consumption/GSF & PD	18,997	25,237	31,478	37,719	43,960	50,201
18 1971 by Category						
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Current Storage						
Weapons & Munitions						
Administration						
Medical & Health						
Community & Public						
Family Housing						
Quartermaster & Supply						
Utility Building						
Other						

**EP Pop & Resident + 1/3 Non-Resident

**Population Served is the total Resident & Non-Resident Population

**PD is Percent Deviation from Base Year

REMARKS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION VOLUNTEER AWP, IN MACOM DABCOM CLIMATIC REGION 4 HDD 3,505 CDD 1,636

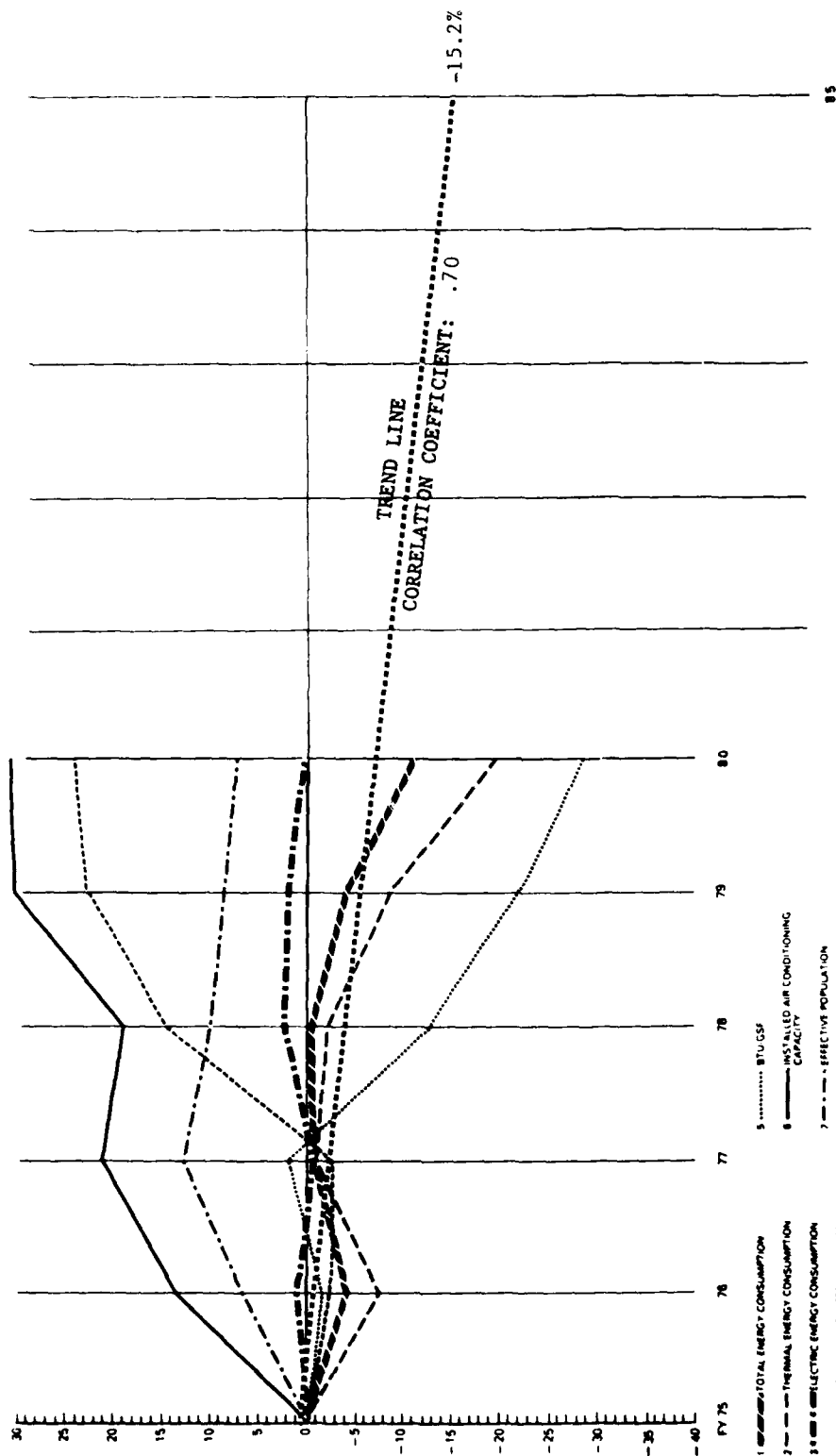
UNIT/STY	75	76	77	78	79	80
MBTU	1,216,465	1,196,104	1,167,271	1,141,011	1,114,816	1,088,626
MBTU	231,840	252,555	278,791	307,678	345,611	394,100
MBTU	302,826	310,529	311,356	311,356	311,356	311,356
PEOPLE	0	0	0	0	0	0
PEOPLE	470	487	504	521	538	555
PEOPLE	470	487	504	521	538	555
PEOPLE	157	162	167	172	177	182
MBTUCAP	1,056,7	1,056,7	1,056,7	1,056,7	1,056,7	1,056,7
MBTUCAP	9,150,6	9,150,6	9,150,6	9,150,6	9,150,6	9,150,6
TONS	750	750	750	750	750	750
MBTUCAP	610,4	610,4	610,4	610,4	610,4	610,4
MBTUCAP	387	387	387	387	387	387
MBTUCAP	6,16	6,16	6,16	6,16	6,16	6,16
BTUCAP	1,485,671	1,235,238	1,016,811	772,352	551,411	387,111
BTUCAP	965,688	790,473	616,111	488,473	387,111	311,356
BTUCAP	519,985	419,865	319,745	219,625	119,505	19,385
BTUCAP	9	9	9	9	9	9
BTUCAP	187	186	185	184	183	182
BTUCAP	662	662	662	662	662	662
BTUCAP	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
BTUCAP	71	71	71	71	71	71
BTUCAP	35	35	35	35	35	35
BTUCAP	9	9	9	9	9	9
BTUCAP	204	204	204	204	204	204
BTUCAP	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

- 1 Energy Consumption is PD
- 2 Thermal En Cons is PD
- 3 Electrical En Cons is PD
- 4 Residential Population is PD
- 5 Non-Residential Population is PD
- 6 Population Served is PD
- 7 Effective Population is PD
- 8 En Consumption Pop Served is PD
- 9 En Consumption Pop is PD
- 10 Electric En Consumption is PD
- 11 Installed Air Cond Capacity is PD
- 12 Electric Energy of Air Cond is PD
- 13 Real Property Inventory (RPI) is PD
- 14 RPI is PD
- 15 Energy Consumption is PD
- 16 Thermal En Consumption is PD
- 17 Electrical En Consumption is PD
- 18 RPI by Category

Maintenance & Production
Research, Development & Training
Storage
Other Covered Storage
Hospital & Medical
Administration
Bachelor Housing
Community Facilities
Family Housing
Operational Buildings
Utility Buildings
Other

REMARKS

"Other" Consolidation DARCOM



A-222

THIS "OTHER" CATEGORY INCLUDES ALL DARCOM DATA SOURCES WHICH ARE NOT REPORTED IN THE "OTHER" CATEGORY FOR FY 75 AND 76. AVERAGE BUILDING FLOOR AREA IN 1978 WAS 1,000,000 SQUARE FEET. AVERAGE BUILDING FLOOR AREA IN 1979 WAS 1,000,000 SQUARE FEET.

U.S. Army ANALYSIS OF ENERGY CONSUMPTION

INSTALLATION: DAVIDSON ARMY CENTER MACOM: DAVIDSON

UNIT/SAFETY	75	76	77	78	79	80
1 Energy Consumption & PD	21,272,284	21,272,284	21,272,284	21,272,284	21,272,284	21,272,284
2 Thermal En Cons & PD	11,192,279	11,192,279	11,192,279	11,192,279	11,192,279	11,192,279
3 Electrical En Cons & PD	10,080,005	10,080,005	10,080,005	10,080,005	10,080,005	10,080,005
4 Resident Population & PD	7,462,116	7,462,116	7,462,116	7,462,116	7,462,116	7,462,116
5 Non Resident Population & PD	3,119,511	3,119,511	3,119,511	3,119,511	3,119,511	3,119,511
6 Population Served** & PD	22,207	22,207	22,207	22,207	22,207	22,207
7 Effective Population*** & PD	75,402	75,402	75,402	75,402	75,402	75,402
8 En Consumption/Pop Served & PD	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
9 En Consumption/Pop Served & PD	7,809	7,809	7,809	7,809	7,809	7,809
10 Electric En Consumption/Population	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
11 Thermal En Consumption/Population	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
12 En Consumption of Air Cond & PD	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
13 Fuel Property Inventory (MVA & PD)	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
14 Effective Population	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
15 Energy Consumption/GSF & PD	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
16 Thermal En Consumption/GSF & PD	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
17 Electrical En Consumption/GSF & PD	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
18 All by Category	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034	1,094,034
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Computer Storage						
Hospital & Medical						
Administration						
Recreation Housing						
Community Facilities						
Family Housing						
Operational Buildings						
Utility Buildings						
Other						
Not Available						
Not Available						

**PD is Per and Disposition from Base Year

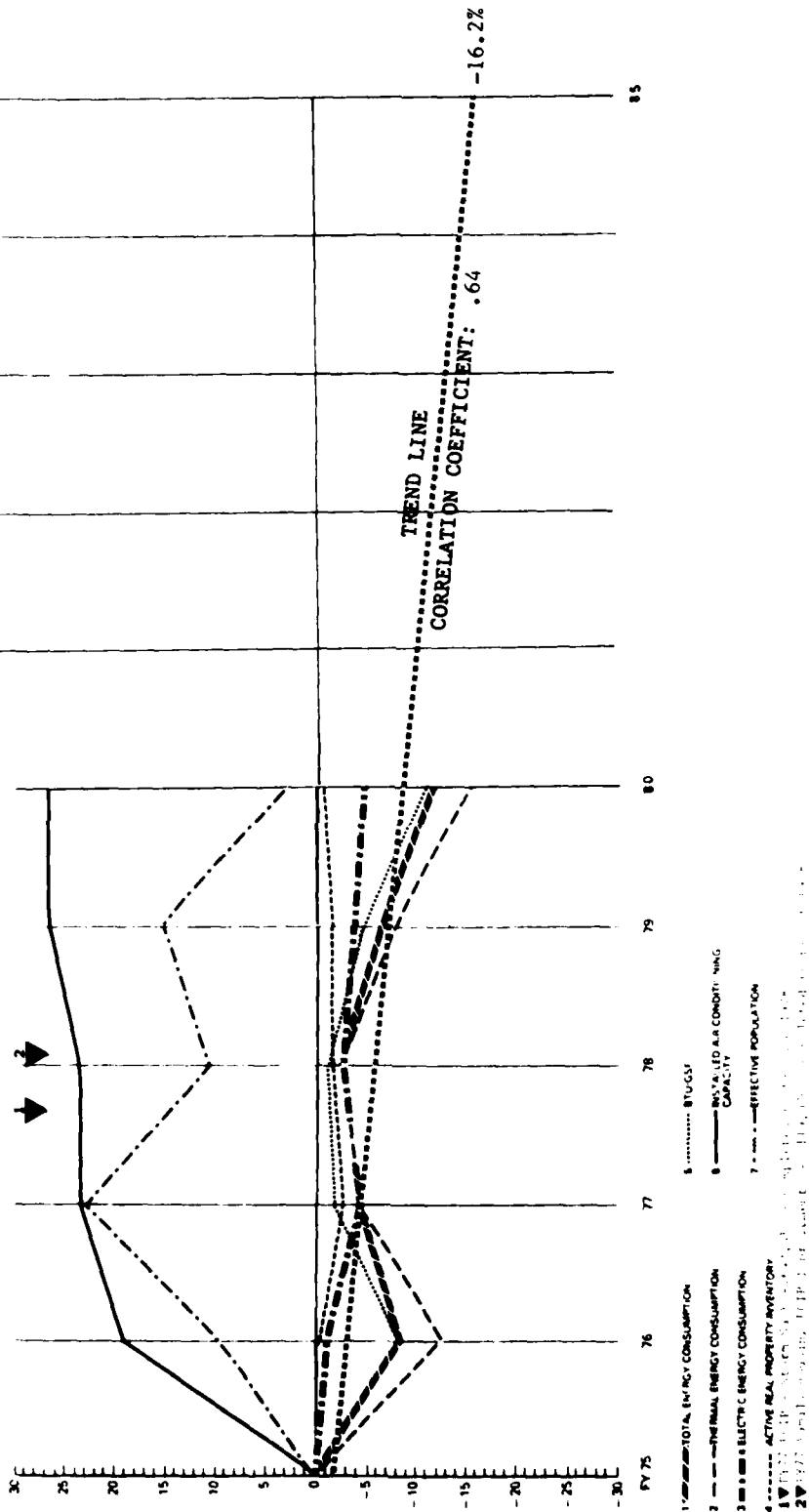
**Population, not used in the total Population & Non-Resident Population

**1980 Pop is Resident + 1/3 Non-Resident

THIS CONSOLIDATION INCLUDES ALL DARTCOM INSTALLATIONS WHICH ARE NOT GOCO OR DEPOSITS.
DATA DOES NOT INCLUDE GERRING AREA SUPPORT CENTER FOR FY 75, NOR HANFORD AAF OR MCALISTER AAF FOR FY 75, 76, AND 77.
ENERGY CONSUMPTION DATA FOR FRANKFORD ARSENAL FOR FY 78, 79 AND 80 WAS OBTAINED FROM DEIS

REMARKS

Aberdeen Proving Ground



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION

ABOVE THE PRINTING POINT, AND

MACOM DAF/DM

CLIMATIC REGION 1

MOD 5, 18, CDO 1, 076

UNIT/STY	75	76	77	78	79	80
ABTU	1,552,310	1,552,310	1,552,310	1,552,310	1,552,310	1,552,310
ABTU	2,462,856	2,462,856	2,462,856	2,462,856	2,462,856	2,462,856
ABTU	1,432,652	1,432,652	1,432,652	1,432,652	1,432,652	1,432,652
PEOPLE	10,315	10,315	10,315	10,315	10,315	10,315
PEOPLE	16,535	16,535	16,535	16,535	16,535	16,535
PEOPLE	26,035	26,035	26,035	26,035	26,035	26,035
PEOPLE	12,932	12,932	12,932	12,932	12,932	12,932
PEOPLE	149,4	149,4	149,4	149,4	149,4	149,4
PEOPLE	232,2	232,2	232,2	232,2	232,2	232,2
PEOPLE	151,2	151,2	151,2	151,2	151,2	151,2
PEOPLE	22,452	22,452	22,452	22,452	22,452	22,452
PEOPLE	54,0	54,0	54,0	54,0	54,0	54,0
PEOPLE	11,725	11,725	11,725	11,725	11,725	11,725
PEOPLE	110,875	110,875	110,875	110,875	110,875	110,875
PEOPLE	208,420	208,420	208,420	208,420	208,420	208,420
PEOPLE	122,405	122,405	122,405	122,405	122,405	122,405
PEOPLE	959	959	959	959	959	959
PEOPLE	956	956	956	956	956	956
PEOPLE	2,119	2,119	2,119	2,119	2,119	2,119
PEOPLE	2,061	2,061	2,061	2,061	2,061	2,061
PEOPLE	2,031	2,031	2,031	2,031	2,031	2,031
PEOPLE	236	236	236	236	236	236
PEOPLE	1,045	1,045	1,045	1,045	1,045	1,045
PEOPLE	1,211	1,211	1,211	1,211	1,211	1,211
PEOPLE	215	215	215	215	215	215
PEOPLE	1,980	1,980	1,980	1,980	1,980	1,980
PEOPLE	212	212	212	212	212	212
PEOPLE	131	131	131	131	131	131
PEOPLE	27	27	27	27	27	27

- 1 Energy Consumption & PD
- 2 Thermal En Core & PD
- 3 Electrical En Core & PD
- 4 Thermal En Core & PD
- 5 Non Resident Population & PD
- 6 Population Saved*** & PD
- 7 Effective Population*** & PD
- 8 En Consumption/Pop Saved & PD
- 9 En Consumption/Pop & PD
- 10 Electrical En Consumption/Population
- 11 Available Air Cond Capacity & PD
- 12 Elec Energy/Ton of Air Cond & PD
- 13 Real Property Inventory (RPI) & PD
- 14 RPI/Effective Population
- 15 Energy Consumption/GSF & PD
- 16 Thermal En Consumption/GSF & PD
- 17 Electrical En Consumption/GSF & PD
- 18 RPI by Category

Training
Maintenance & Protection
Research, Development & Testing
Storage
Other Covered Storage
Housing & Medical
Administration
Bachelor Housing
Community Facilities
Family Housing
Operational Buildings
Utility Buildings
Other

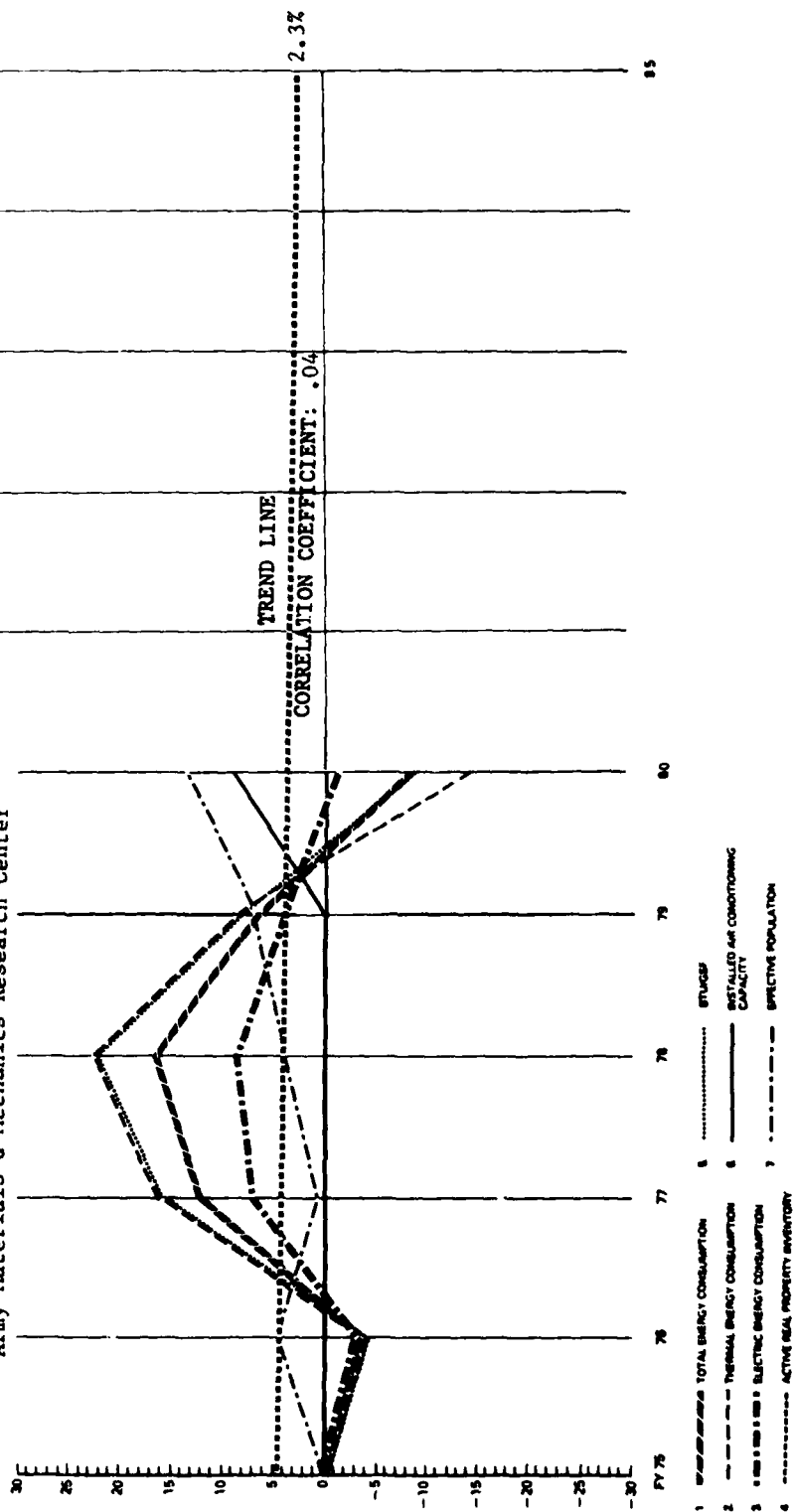
**PD is Percent Deviation from Base Year

***Population Saved is the total Resident & Non Resident Population

1 FY 77 ECIP - Storm Sash - \$642,510 - Completed (estimated) June 1974

2 FY 77 Family Housing ECIP Improvements - \$119,070 - Completed (estimated) October 1974

Army Materials & Mechanics Research Center



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - MACOM - PARCOM - CLIMATIC REGION - HDD 5,621 CDD 661

ARMY MATRIPIALS & MECHANICS
RESEARCH CENTER, PA

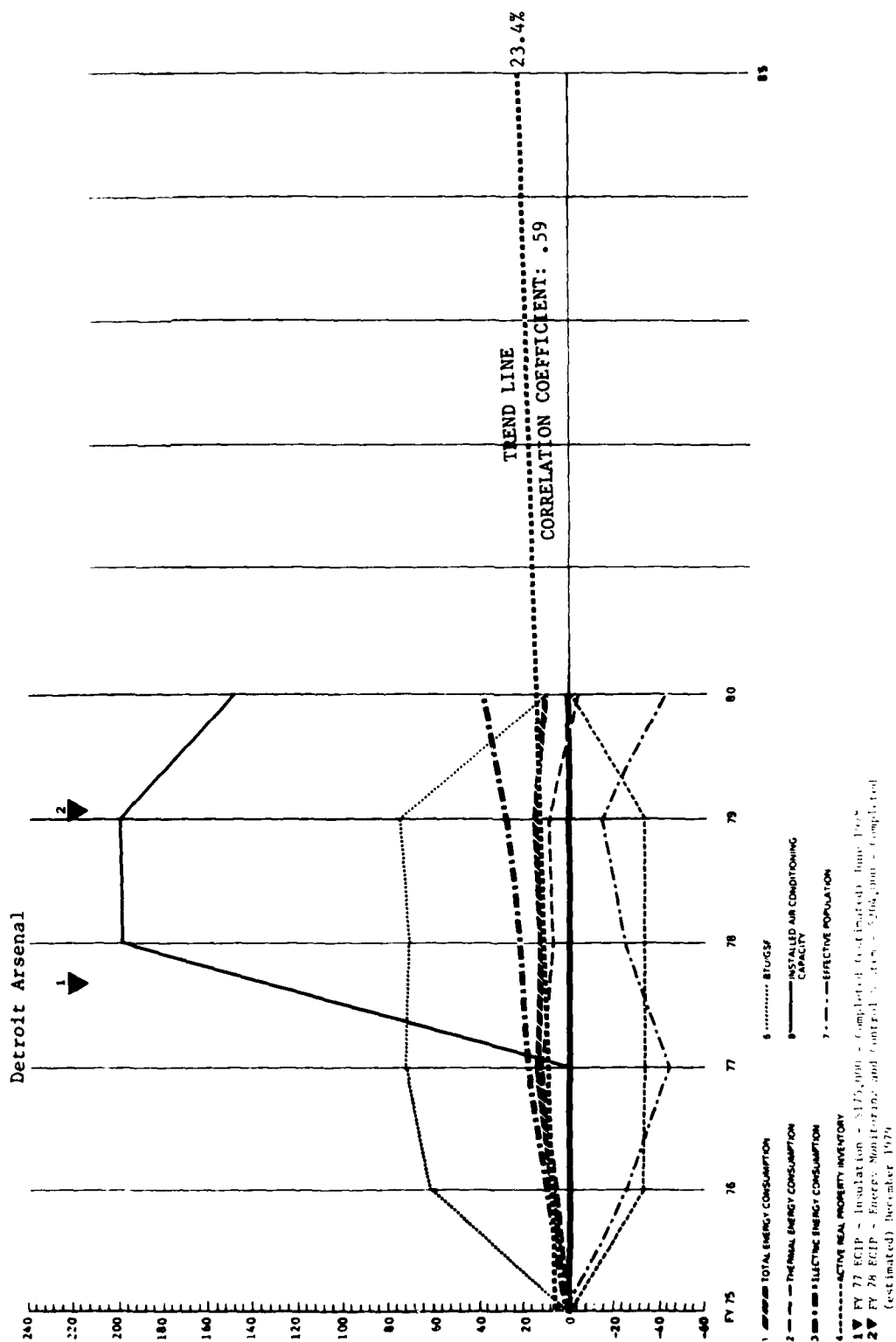
UNITS	76	77	78	79	80
1 Energy Consumption & PD	189,919	213,150	221,582	202,420	171,460
2 Thermal En Cons & PD	106,256	125,159	132,520	127,404	91,050
3 Electrical En Cons & PD	81,665	88,391	88,632	85,016	80,690
4 Resident Population & PD	13	19	23	25	28
5 Non Resident Population & PD	632	622	629	645	679
6 Population Served** & PD	645	643	652	670	707
7 Effective Population*** & PD	294,4	337,5	339,8	302,1	256
8 En Consumption/Pop Served & PD	847,8	943,1	951,0	843,4	684,0
9 En Consumption/Pop Served & PD	6,281,9	4,599,5	3,853,6	3,400,6	2,881,8
10 Electric En Consumption/Resident Population	855	855	855	855	855
11 Heating En Consumption/Resident Population	95,5	102,2	103,7	99,4	86,8
12 Electric En Consumption/Resident Population	685	685	685	685	685
13 Heat Property Inventory BPH & PD	3,06	3,03	2,96	2,85	2,70
14 Heat Property Inventory BPH & PD	277,254	311,167	323,477	295,503	253,635
15 Energy Consumption/GSF & PD	158,035	183,590	194,087	171,393	135,339
16 Thermal En Consumption/GSF & PD	119,219	127,578	129,389	124,111	117,796
17 Electrical En Consumption/GSF & PD	7	7	7	7	7
18 Non En Category	39	39	39	39	39
Training	382	382	382	382	382
Manufacture & Production	66	66	66	66	66
Research, Development & Testing	Not Available	Not Available	Not Available	Not Available	Not Available
Storage	89	89	89	89	89
Other General Storage	46	46	46	46	46
Hospital & Medical	10	10	10	10	10
Administration	1	1	1	1	1
Bachelor Housing	42	42	42	42	42
Community For Base	Not Available	Not Available	Not Available	Not Available	Not Available
Family Housing	Not Available	Not Available	Not Available	Not Available	Not Available
Operational Buildings	Not Available	Not Available	Not Available	Not Available	Not Available
Utility Buildings	Not Available	Not Available	Not Available	Not Available	Not Available
Other	Not Available	Not Available	Not Available	Not Available	Not Available

**Population Served is the total Resident & Non Resident Population

*PD is Percent Deviation from Base Year

***EN Pop is Resident + 1/3 Non-Resident

REMARKS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION DETROIT ARSENALE, MI MACOM DARTON CLIMATIC REGION 2 HDD 6,228 CDD 743

UNITS	75	76	77	78	79	80
1 Energy Consumption & PD	1,206,402	1,156,200	1,426,062	1,413,721	1,441,529	1,311,128
2 Thermal En Cons & PD	800,828	867,968	904,720	861,621	864,918	756,100
3 Electrical En Cons & PD	405,574	288,232	521,342	552,100	576,611	555,028
4 Resident Population & PD	98.0	1	1	1	1	1
5 Non Resident Population & PD	4,403	5,487	4,080	5,565	6,196	4,119
6 Population Served** & PD	5,383	5,487	4,081	5,565	6,196	4,119
7 Effective Population*** & PD	2,348	1,829	1,251	1,848	2,065	1,380
8 En Consumption/Pop Served & PD	232.4	297.2	321.9	295.3	292.7	293.6
9 En Consumption/Pop & PD	511.2	791.5	1,055.2	766.1	698.1	951.6
10 Electric En Consumption/Resident Population	559.7	2,117	2,117	1,972.1	1,980.8	1,677.7
11 Insulated Air Cond Capacity & PD	2,112.8	210.6	251.0	17.0	91.4	106.2
12 Elec Exemption of Air Cond & PD	1,968	1,310	1,308	1,108	1,308	1,966
13 Fuel Property Inventory (Btu) & PD	635,825	722,100.91	1,097,906	1,082,193	1,102,086	1,424,772.1
14 Fuel Property Inventory (MWh) & PD	408,960	662,510	691,681	660,261	661,252	667,944
15 Energy Consumption/GSF & PD	228,931	377,696	406,225	423,133	440,836	384,588
16 Thermal En Consumption/GSF & PD	11	31	31	31	31	31
17 Electrical En Consumption/GSF & PD	186	160	160	160	160	160
18 WPI by Category	765	346	346	346	346	361
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Covered Storage						
Hospital & Medical						
Administration						
Bedroom Housing						
Community Fair Play						
Family Housing						
Overseas Bus Stop						
Utility Buildings						
Other						

**PD is Percent Deviation from Base Year

***Eff Pop is Resident + 1/2 Non-Resident

**Population Served is the total Resident & Non-Resident Population

***Eff Pop is Resident + 1/2 Non-Resident

**Population Served is the total Resident & Non-Resident Population

***Eff Pop is Resident + 1/2 Non-Resident

1 FY 77 ECIP - Insulation - \$175,000 - Completed (estimated) June 1978

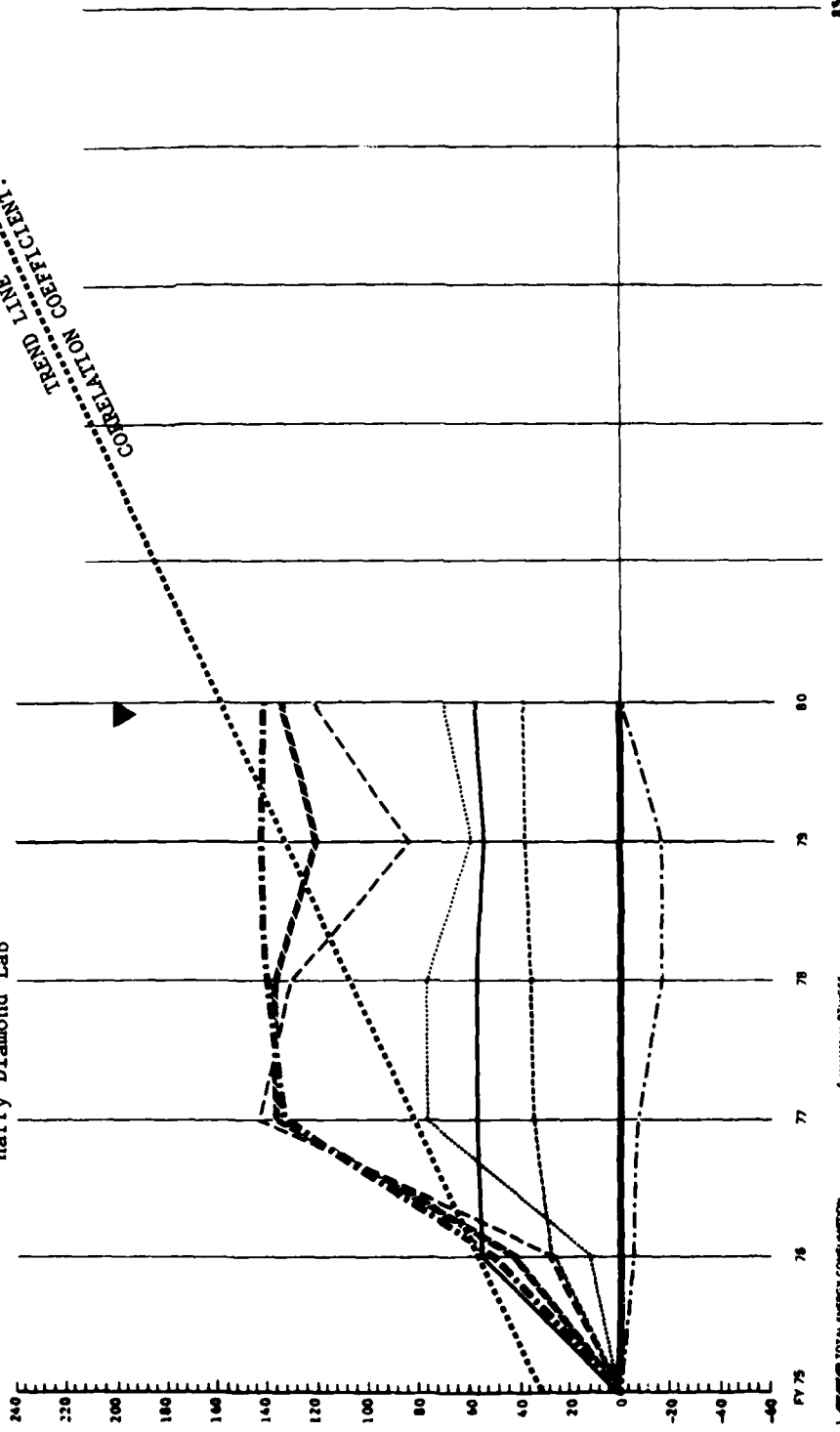
2 FY 78 ECIP - Energy Monitoring and Control System - \$204,000 - Completed (estimated) December 1979

REMARKS

286.8%

TREND LINE
CORRELATION COEFFICIENT: .82

Harry Diamond Lab



- 1 TOTAL ENERGY CONSUMPTION
- 2 THERMAL ENERGY CONSUMPTION
- 3 ELECTRIC ENERGY CONSUMPTION
- 4 ACTIVE REAL PROPERTY INVENTORY
- 5 BTU/GSF
- 6 INSTALLED AIR CONDITIONING CAPACITY
- 7 EFFECTIVE POPULATION

▼ FY 78 ELP - Energy Control System - 5164,000 - Completed September 1980

U.S. Army ANALYSIS

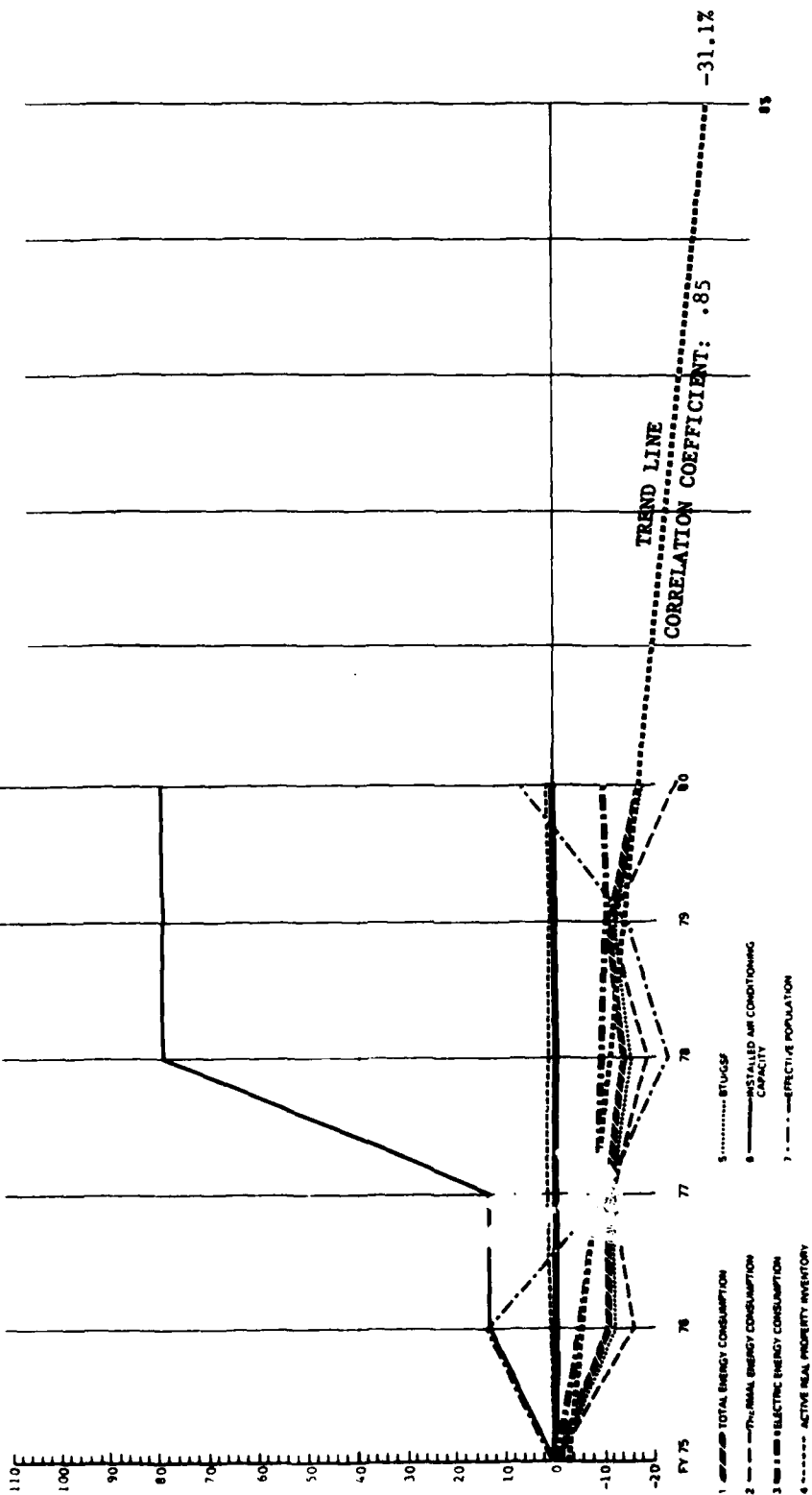
UNITS/ST	75	76	77	78	79	80
ARTU	135,424	279,682	(43,111	116,511	420,943	1,120,011
ARTU	1324	89,499	(27,527	143,131	171,758	129,283
ARTU	70,353	140,453	(52,111	1132,49	100,407	153,971
PEOPLE	125,021	1,901,111	(1,111	1,111	301,660	1,141,011
PEOPLE	1,436	1,1370	(- 4,611	1,1330	1,182	1,1397
PEOPLE	3,436	1,1370	(- 4,611	1,1330	1,182	1,1397
PEOPLE	479	1,1370	(- 4,611	1,1330	1,182	1,1397
PEOPLE	457	1,1370	(- 4,611	1,1330	1,182	1,1397
ARTUCAP	136,1	204,1	(50,011	367,5	391,0	361,8
ARTUCAP	501,3	612,0	(50,011	1,091,1	1,173,0	1,085,5
TONS	3,083	4,729	(55,431	4,755	4,755	4,755
INSTITUTION	41,1	40,2	(- 2,21	61,2	61,2	61,2
RSF	559	213	(1,56	749	751	771
RSFCUP	1,117	1,156	(3,375)	1,169	1,190	1,194
BTUGSF	149,596	392,261	(12,271	617,093	635,399	558,940
BTUGSF	125,855	125,855	(- 0,21	228,326	181,41	167,682
BTUGSF	211,740	256,716	(19,21	388,768	400,009	391,258
RSF	29	22	(-	24	22	22
RSF	456	455	(-	499	500	520
RSF	27	81	(-	1	3	3
RSF	BASE	BASE	(-	73	73	73
RSF	2	2	(-	2	2	2
RSF	116	114	(-	114	114	114
RSF	13	7	(-	8	8	8
RSF	8	8	(-	8	8	8
RSF	1	1	(-	1	1	1
RSF	25	25	(-	25	25	25
RSF	1	1	(-	1	1	1
RSF	BASE	BASE	(-	3	3	3

 Net = Percent Deviation from Base Year |

▼ FY 78 ECIP - Energy Control System - \$644,000 - Completed September 1980

RESULTS

Dugway Proving Ground



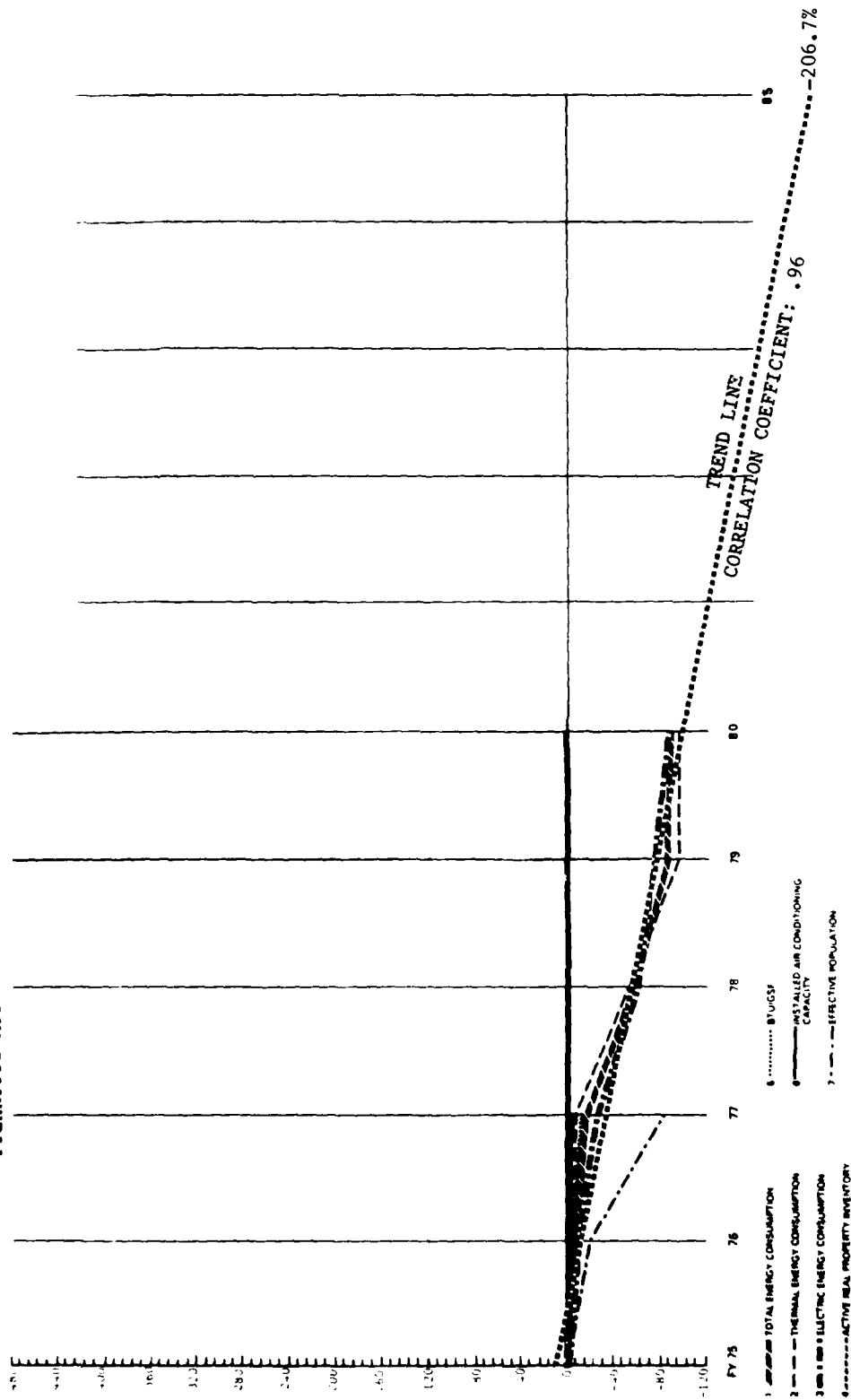
U.S. ARMY ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION DOWNS PROVED, UT MACOM DARCOM CLIMATIC REGION 2 HOD 5,877 CDD 1,084

UNITARY	PS	PS	PS	PS	PS	PS	PS	PS	PS
WATTU	476,035	476,035	476,035	476,035	476,035	476,035	476,035	476,035	476,035
WATTU	252,259	252,259	252,259	252,259	252,259	252,259	252,259	252,259	252,259
WATTU	273,236	273,236	273,236	273,236	273,236	273,236	273,236	273,236	273,236
PEOPLE	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236
PEOPLE	316	316	316	316	316	316	316	316	316
PEOPLE	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310
PEOPLE	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966	1,966
WATTUCAP	205.1	205.1	205.1	205.1	205.1	205.1	205.1	205.1	205.1
WATTUCAP	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1
WATTUCAP	124.7	124.7	124.7	124.7	124.7	124.7	124.7	124.7	124.7
TONS	656	656	656	656	656	656	656	656	656
WATTUCAP	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6
ESF	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919
ESF	245,505	245,505	245,505	245,505	245,505	245,505	245,505	245,505	245,505
BTUGSF	130,118	130,118	130,118	130,118	130,118	130,118	130,118	130,118	130,118
BTUGSF	115,187	115,187	115,187	115,187	115,187	115,187	115,187	115,187	115,187
ESF	14	14	14	14	14	14	14	14	14
ESF	149	149	149	149	149	149	149	149	149
ESF	192	192	192	192	192	192	192	192	192
ESF	155	155	155	155	155	155	155	155	155
ESF	86	86	86	86	86	86	86	86	86
ESF	174	174	174	174	174	174	174	174	174
ESF	242	242	242	242	242	242	242	242	242
ESF	192	192	192	192	192	192	192	192	192
ESF	666	666	666	666	666	666	666	666	666
ESF	34	34	34	34	34	34	34	34	34
ESF	30	30	30	30	30	30	30	30	30
ESF	14	14	14	14	14	14	14	14	14
ESF	149	149	149	149	149	149	149	149	149
ESF	192	192	192	192	192	192	192	192	192
ESF	155	155	155	155	155	155	155	155	155
ESF	86	86	86	86	86	86	86	86	86
ESF	174	174	174	174	174	174	174	174	174
ESF	242	242	242	242	242	242	242	242	242
ESF	192	192	192	192	192	192	192	192	192
ESF	666	666	666	666	666	666	666	666	666
ESF	34	34	34	34	34	34	34	34	34
ESF	30	30	30	30	30	30	30	30	30
ESF	14	14	14	14	14	14	14	14	14

**Population Served is the total Resident & Non Resident Population

REMARKS

Frankford Arsenal



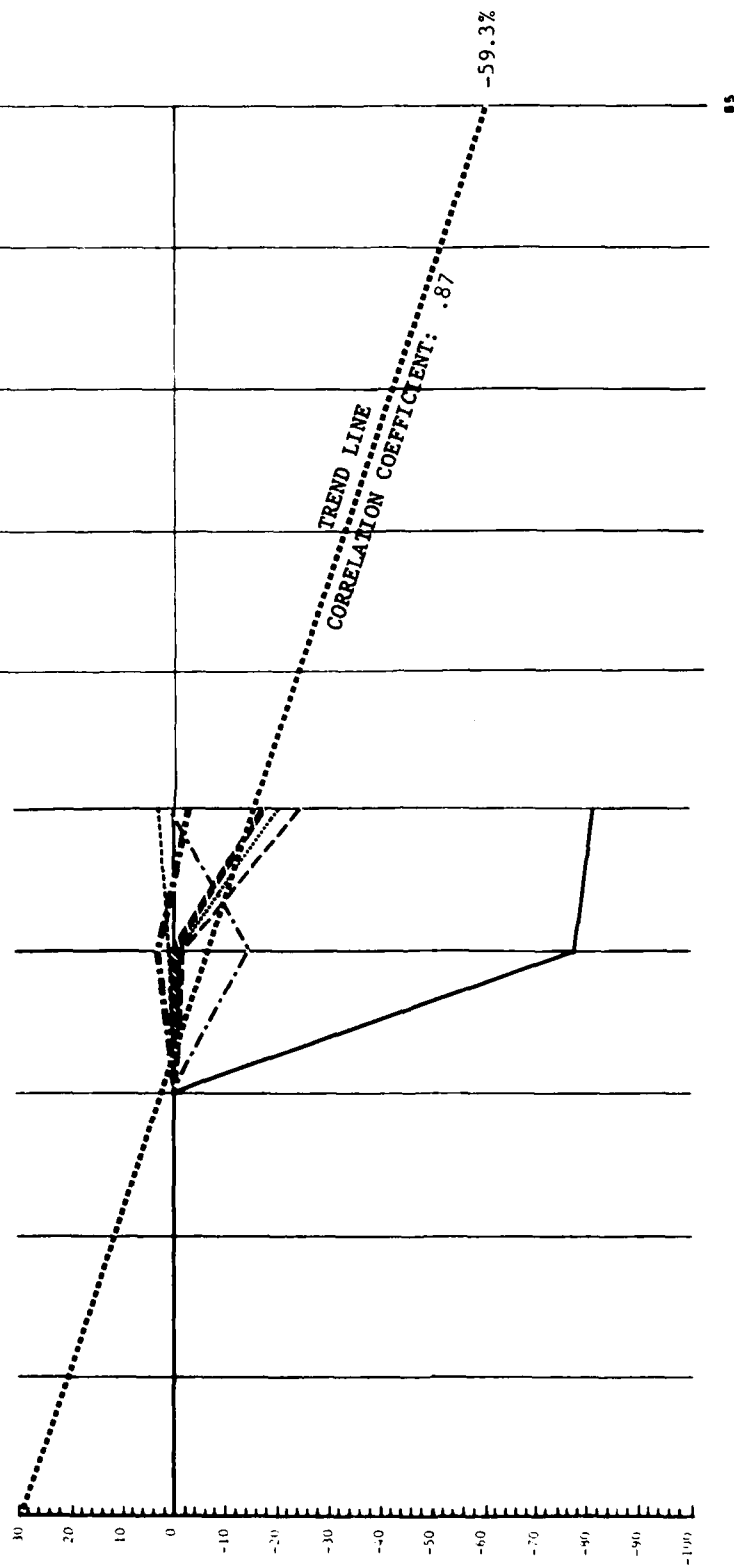
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - FORT MONROE, VA - MACOM - DARECOM - CLIMATIC REGION 3 - MOD 4,865 CDD 1,104

UNIT/TYPE	76	77	78	79	80
1 Energy Consumption to PD	844,501	780,225	707,486	349,090	1-58,71
2 Thermal En. Cons. to PD	506,710	468,115	466,941	226,509	1-55,21
3 Electrical En. Cons. to PD	337,800	312,110	240,545	122,481	1-63,81
4 Resident Population to PD	27	11	2	1-82,61	1
5 Non-Resident Population to PD	3,326	2,656	563	1-83,71	1
6 Population Servant** to PD	3,354	2,667	563	1-83,71	1
7 Effective Population*** to PD	1,115	896	1-21,11	183	1-83,91
8 En. Consumption/Pop. Served to PD	252.0	202.5	116.11	1,296.1	1415.11
9 En. Consumption/Pop. Served to PD	244.1	870.8	117.01	1,866.0	1419.61
10 Electric En. Consumption/Resident Population	12,511.1	28,311.8	126.81	120,222.5	1861.31
11 Installed Air Cond Capacity to PD	2,702	7,700	1	1	1
12 Elec Energy/Ton of Air Cond to PD	63.8	60.5	1-7,61	32.0	1-27,11
13 Real Property Inventory (RPI) to PD	2,604	2,587	1-7,01	2,479	1-4,81
14 RPI/Effective Population	2.79	2.89	1-25,81	13.55	1490.41
15 Energy Consumption/GSF to PD	324,110	301,595	1-7,01	283,392	1-32,01
16 Thermal En. Consumption/GSF to PD	194,586	180,957	1-7,01	188,359	1-3,21
17 Electrical En. Consumption/GSF to PD	129,524	120,638	1-7,01	97,033	1-25,21
18 En. by Category	32	32	32	32	32
Training	1,052	1,052	1,049	1,049	1,049
Maintenance & Production	577	577	599	599	599
Research, Development & Testing	195	195	15	15	15
Storage	195	195	180	180	180
Other Covered Storage	6	6	6	6	6
Hospital & Medical	516	516	445	445	445
Administration	14	14	14	14	14
Bachelor Housing	50	50	46	46	46
Community Facilities	96	96	58	58	58
Family Housing	1	1	1	1	1
Operational Buildings	64	64	48	48	48
Utility Buildings	1	1	1	1	1
Other	1	1	1	1	1

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population *RPI Pop is Resident + 1/2 Non-Resident

REMARKS: No Report for FY 78 as the Installation went into caretaker status in FY 79.

Hawthorne AAP



A-236

- 1 TOTAL ENERGY CONSUMPTION
- 2 THERMAL ENERGY CONSUMPTION
- 3 ELECTRIC ENERGY CONSUMPTION
- 4 ACTIVE REAL PROPERTY INVENTORY
- 5 TOTAL ENERGY CONSUMPTION
- 6 INSTALLED AIR CONDITIONING CAPACITY
- 7 EFFECTIVE POPULATION

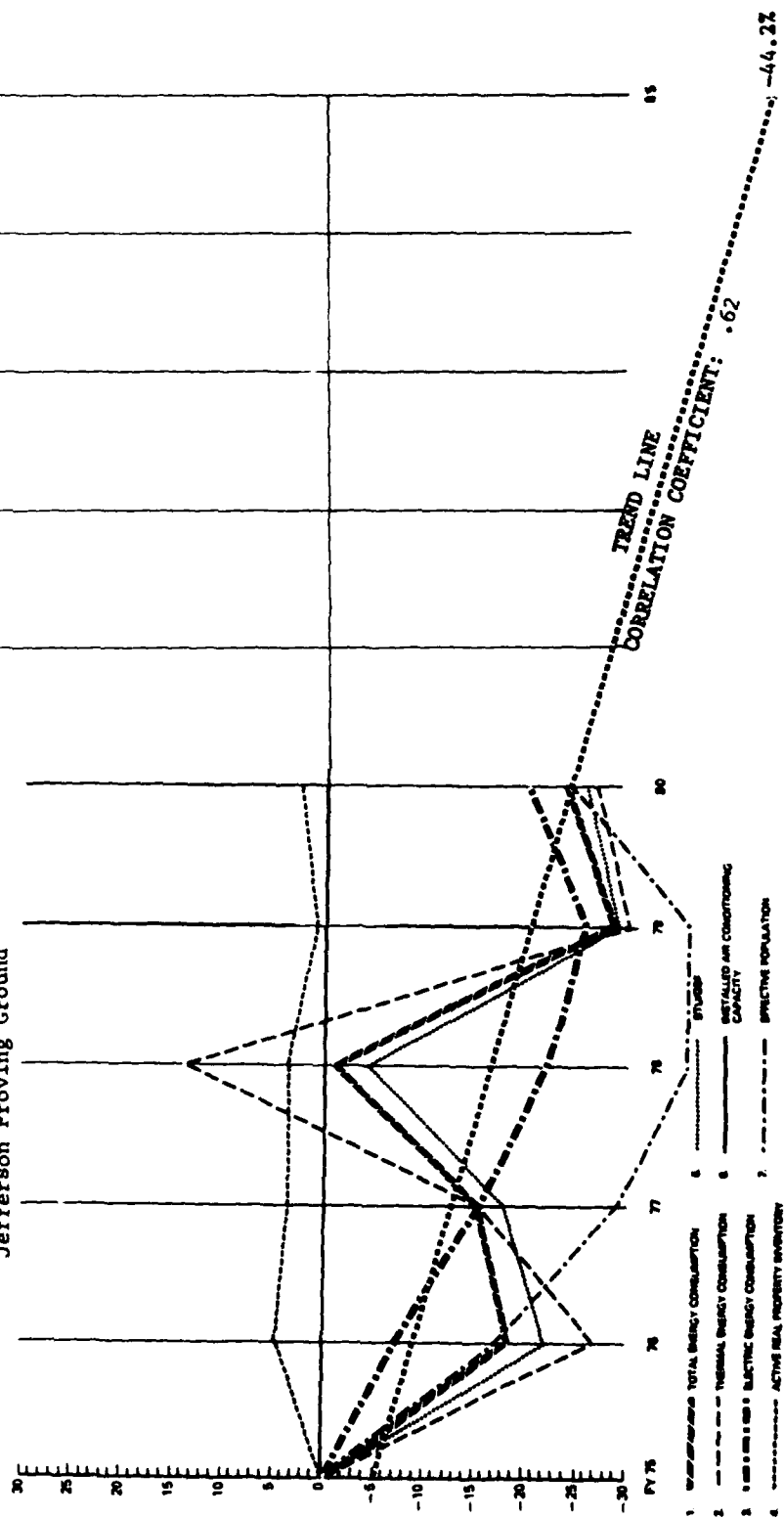
U S Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION HAWTHORNE AAF, TX MACOM DARTMOUTH CLIMATIC REGION 7 HOD 5607 CDD 487

UNIT/KEY	76	77	78	79	80
1 Energy Consumption to PD					
2 Thermal En Cons to PD					
3 Electrical En Cons to PD					
4 Resident Population to PD					
5 Non Resident Population to PD					
6 Population Served** to PD					
7 Effective Population*** to PD					
8 En Consumption/Pop Served to PD					
9 En Consumption/H Pop to PD					
10 Electric En Consumption/Resident Population					
11 Installed Air Cond Capacity to PD					
12 Elec Energy/Ton of Air Cond to PD					
13 Real Property Inventory (RPI) to PD					
14 RPI/Effective Population					
15 Energy Consumption/GSF to PD					
16 Thermal En Consumption/GSF to PD					
17 Electrical En Consumption/GSF to PD					
18 RPI by Category					
Training					
Maintenance & Production					
Research, Development & Testing					
Storage					
Other Covered Storage					
Hospital & Medical					
Administration					
Bachelor Housing					
Community Facilities					
Family Housing					
Operational Buildings					
Utility Buildings					
Other					
Not Available					
BASE					
PD & Persons Disposition from Base Year					
**Population Served is the total Resident & Non Resident Population					
***H Pop is Resident & 1/3 Non Resident					

This Installation was transferred from the U.S. Navy as of FY78 and is NOT Contractor operated.

REMARKS

Jefferson Proving Ground



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION JEFFERSON PROVING GRD., INMACOM MACOM CLIMATIC REGION 3 HDD 5,132 CDD 1,191

UNITARY	PD	PD	PD	PD	PD	PD	PD	PD	PD
1 Energy Consumption & PD	96,171	78,218	1-14,711	81,306	1-15,511	96,827	1-14,711	68,124	1-29,211
2 Thermal En Cons & PD	55,238	40,674	1-27,111	47,158	1-15,511	63,548	1-13,911	38,150	1-31,611
3 Electrical En Cons & PD	40,139	37,544	1-7,011	34,148	1-15,511	31,299	1-22,511	29,974	1-25,811
4 Resident Population & PD	6	49	1-21,011	39	1-37,111	28	1-34,811	31	1-50,011
5 Non Resident Population & PD	56,7	45,7	1-16,511	398	1-27,211	359	1-34,411	352	1-35,611
6 Population Serv** & PD	60,7	50,6	1-16,911	437	1-28,211	387	1-36,511	383	1-37,311
7 Effective Population*** & PD	62,1	50,1	1-17,411	472	1-29,511	425	1-39,311	418	1-39,311
8 En Consumption/Pop Served & PD	1,71,9	154,6	1-7,111	146,1	1-17,811	245,3	1-55,211	177,9	1-12,411
9 En Consumption/Pop & PD	3,5,1	38,9,1	1-1,311	472,7	1-18,911	640,8	1-62,611	460,3	1-16,811
10 Electric En Consumption/Resident Population	6,2,5	766,2	1-37,611	875,6	1-34,411	1,117,8	1-71,611	966,9	1-48,411
11 Insulated Air Cond Capacity & PD	5	665	1-011	665	1-011	665	1-011	665	1-011
12 Elec Energy/Ton of Air Cond & PD	20,2	56,5	1-7,011	51,4	1-15,511	47,1	1-22,511	45,1	1-25,811
13 Real Property Inventory (RPI) & PD	1,75	70,7	1-4,711	69,7	1-3,311	69,7	1-3,311	67,9	1-0,611
14 RPI/Residence Population	2,77	3,52	1-27,111	4,05	1-46,511	4,71	1-70,211	4,59	1-65,811
15 Energy Consumption/GSF & PD	14,2	110,634	1-22,311	116,651	1-18,111	136,079	1-4,511	100,330	1-29,611
16 Thermal En Consumption/GSF & PD	82,317	57,530	1-10,411	62,659	1-18,111	91,174	1-10,311	56,186	1-32,011
17 Electrical En Consumption/GSF & PD	56,839	53,103	1-11,311	48,993	1-18,111	44,905	1-25,011	44,144	1-26,211
18 RPI by Category									
Training	28	28		28		28		28	
Maintenance & Production	187	187		187		187		187	
Research, Development & Testing	74	74		74		74		74	
Storage	194	194		194		194		194	
Other Covered Storage									
Hospital & Medical	3	3		3		3		3	
Administration	70	70		70		70		70	
Backshop Housing									
Community Facilities	34	34		34		34		34	
Family Housing	61	61		61		61		61	
Operational Buildings	10	10		10		10		10	
Utility Buildings	14	14		14		14		14	
Other									

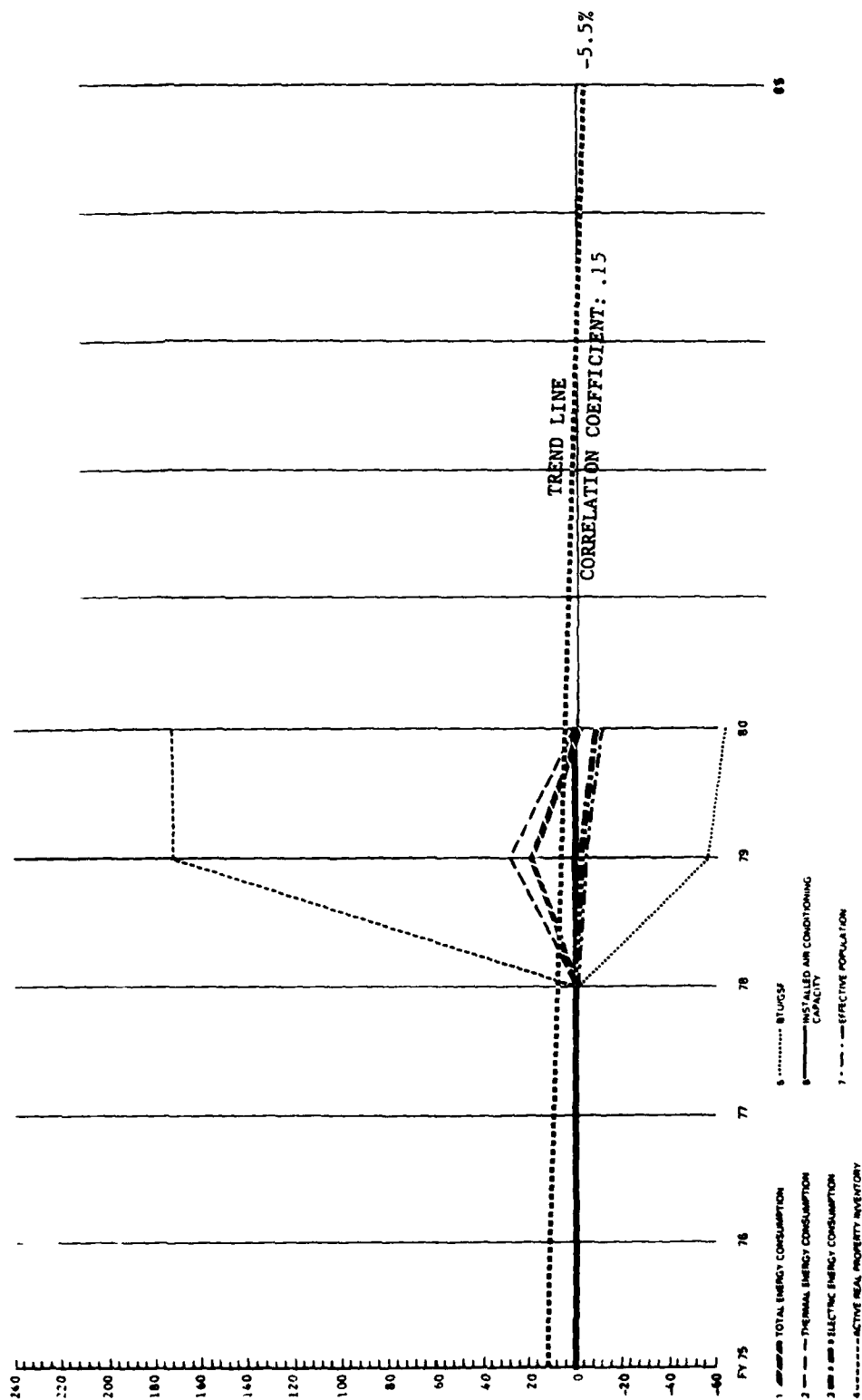
**PD is Percent Deviation from Base Year

***Population Served is the total Resident & Non Resident Population

****RPI Pop is Resident + 1/2 Non-Resident

REMARKS

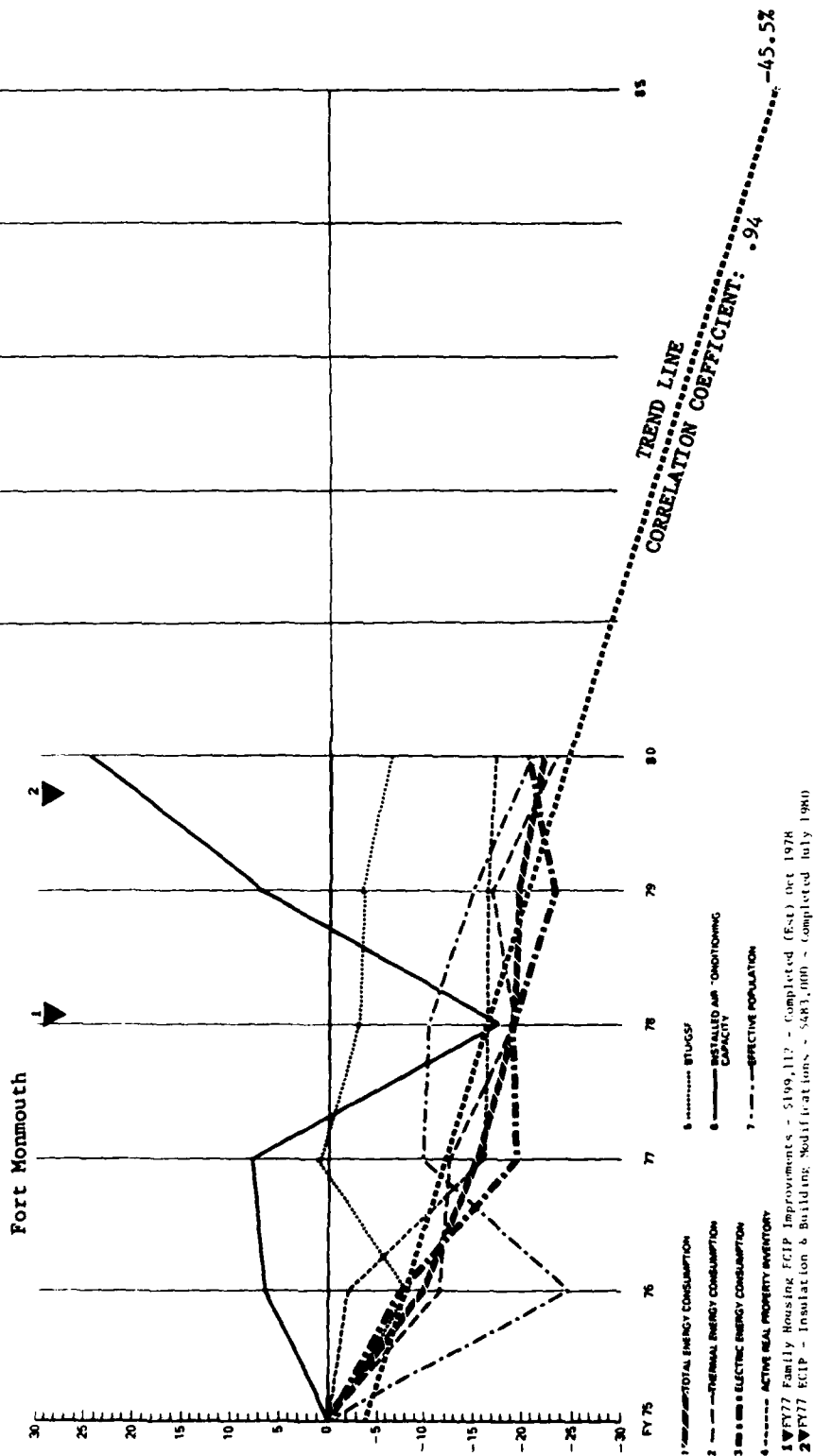
McAlester AAP



CLIMATIC REGION 7 HDD 3255 CDD 2106

UNIT/STY	70	70	80
MRTU	312.121	369,570	301,045
MRTU	213.150	272,675	212,525
MRTU	98,971	90,895	88,320
PEOPLE	992	934	857
PEOPLE	34	130	37
PEOPLE	1,027	1,064	894
PEOPLE	1,006	977	869
MRTUCAP	303.9	347.3	336.7
MRTUCAP	310.9	378.3	346.4
MRTUCAP	99.7	103.7	103.3
TONS	1,125	1,125	1,125
MRTUTION	88.0	86.1	78.7
KSF	3,401	9,315	9,259
KSF/CAP	3.39	9.53	10.65
BTUGSF	91,773	39,675	32,514
BTUGSF	62,673	29,273	22,953
BTUGSF	39,100	10,402	9,561
KSF	972	1,002	1,002
KSF	10	10	10
KSF	1,610	5,963	5,936
Not Available Separately Included Above	139	1,796	1,801
KSF	7	7	6
KSF	76	56	89
KSF	58	49	42
KSF	252	95	206
KSF	95	61	58
KSF	46	8	38
KSF	36	371	56
Not Available	99	97	0

STUDY



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION - FT. MONMOUTH, NJ - MACOM - PARCOM - CLIMATIC REGION 3 HOD 5,128 CDD 770

UNITS	77	78	79	80
1 Energy Consumption & PD	1,836,000	1,654,654	1,487,631	1,425,160
2 Thermal En Cons & PD	1,064,532	928,607	827,950	800,100
3 Electrical En Cons & PD	783,468	726,047	659,681	624,660
4 Resident Population & PD	6,436	1,879	5,270	5,241
5 Non Resident Population & PD	9,587	10,266	7,126	5,258
6 Population Survey** & PD	16,093	14,095	13,396	11,339
7 Effective Population*** & PD	9,632	7,251	8,645	7,607
8 En Consumption/Pop Survey & PD	114.6	117.4	111.1	125.7
9 En Consumption/Pop & PD	190.6	228.2	172.1	187.4
10 Electric En Consumption/Resident Population	122.7	190.1	102.0	108.8
11 Heated Air Const Capacity & PD	5,505	5,870	4,526	6,862
12 Heat Property Inventory (BPI) & PD	163.4	126.0	161.3	91.0
13 Heat Energy of Air Const & PD	7,431	7,274	6,206	6,160
14 Non-Effective Population	287,075	227,425	239,708	231,390
15 Energy Consumption/GSF & PD	150,833	127,386	136,633	129,986
16 Thermal En Consumption/GSF & PD	106,242	100,846	107,404	101,406
17 Electrical En Consumption/GSF & PD	750	600	136	235
18 BPI by Category				
Training	374	351	354	355
Maintenance & Production	814	811	802	802
Research, Development & Testing	562	627	2	2
Storage				
Other Covered Storage	158	156	506	497
Hazardous Materials	1,558	1,405	1,339	1,200
Administration	1,061	927	561	561
Bachelor Housing	566	565	552	562
Community Facilities	1,546	1,685	1,687	1,688
Family Housing	62	57	56	51
Operational Buildings	43	44	70	52
Other				

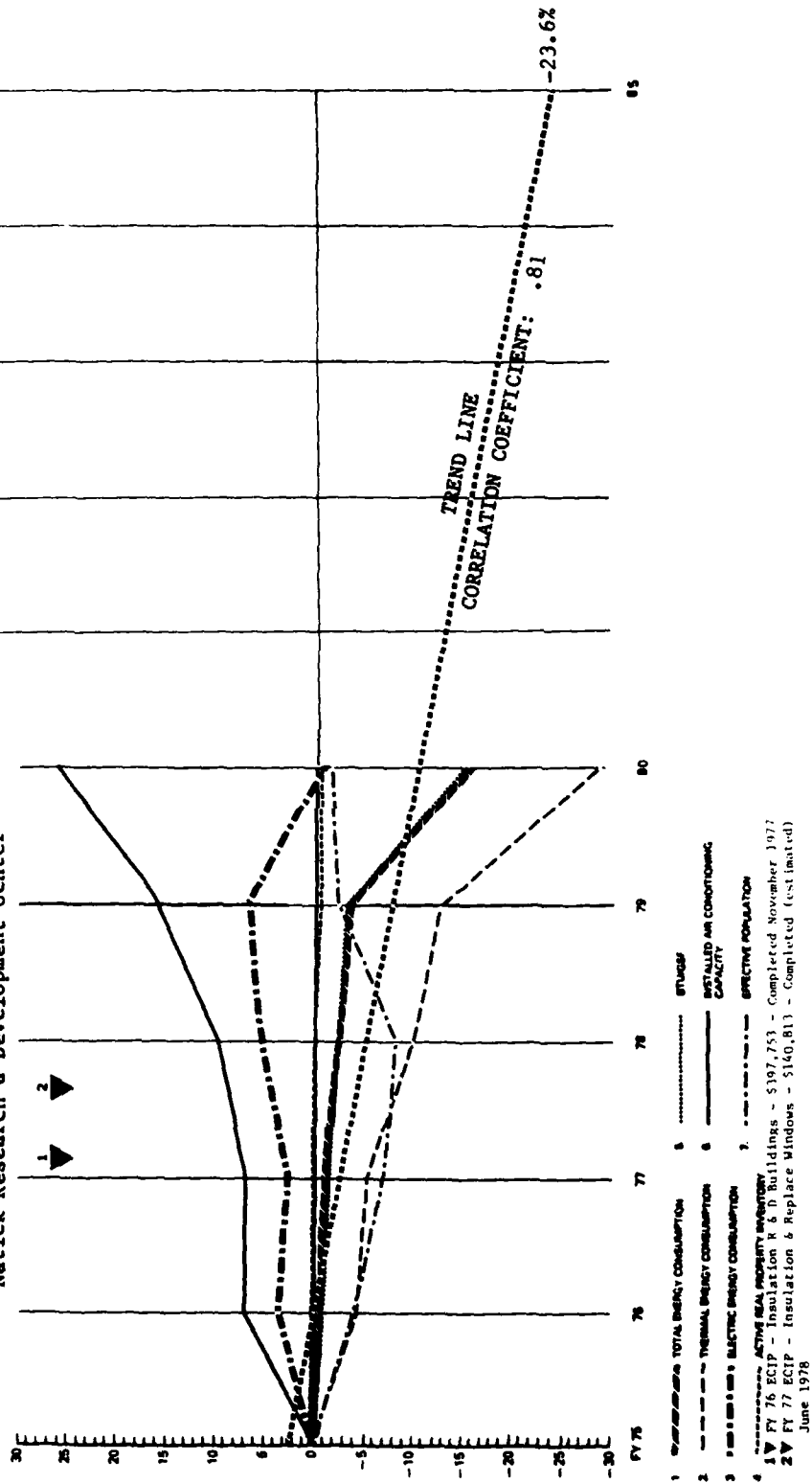
**PD at Percent Deviation from Base Year

***Population Surveyed at the total Resident & Non-Resident Population

1 77 Family Housing ECIP Improvements - \$199,112 - Completed (estimated) October 1978

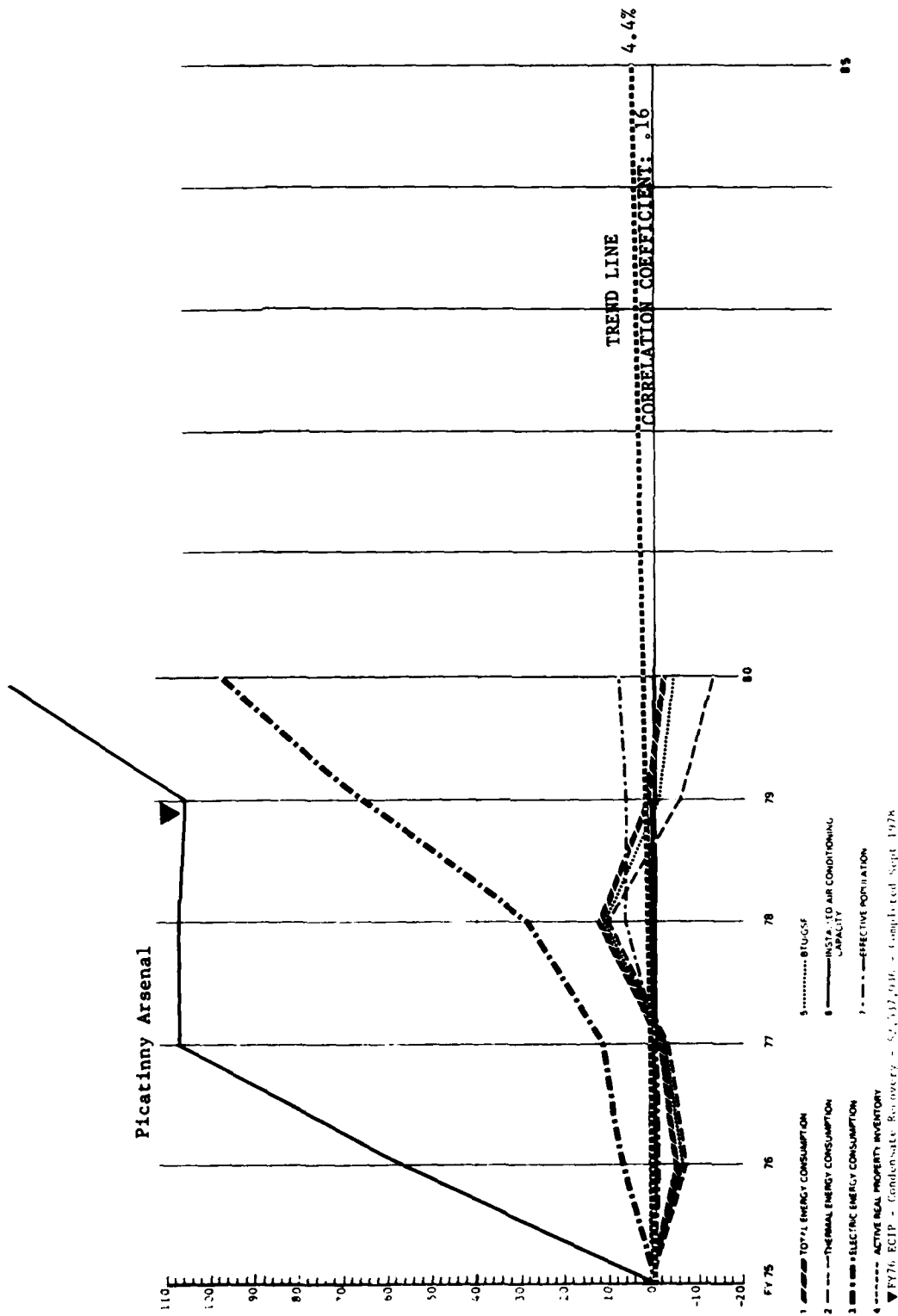
2 77 ECIP - Insulation & Building Modifications - \$481,000 - Completed July 1980

Natick Research & Development Center



UNITARY	76	77	78	79	80
1. Energy Consumption @ PD	308,772	304,502	299,782	297,133	259,443
2. Thermal En. Cost @ PD	161,650	155,297	146,894	142,124	116,072
3. Electrical En. Cost @ PD	143,121	149,205	152,888	154,509	143,371
4. Resident Population @ PD	552	542	539	536	537
5. Non-Resident Population @ PD	1,322	1,285	1,232	1,213	1,215
6. Population Served** @ PD	1,732	1,669	1,582	1,601	1,612
7. Effective Population*** @ PD	814	779	747	791	802
8. En. Consumption/Pop Served @ PD	378.3	388.7	389.5	375.5	375.5
9. En. Consumption/Pop Served @ PD	379.3	402.2	401.3	375.6	375.6
10. En. Consumption/Pop Served @ PD	608.8	653.5	663.3	663.3	663.3
11. Incandescent Alk. Cap. Capacity @ PD	894	956	983	1,037	1,037
12. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
13. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
14. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
15. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
16. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
17. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
18. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
19. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
20. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
21. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
22. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
23. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
24. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
25. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
26. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
27. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
28. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
29. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
30. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
31. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
32. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
33. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
34. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
35. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
36. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
37. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
38. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
39. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
40. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
41. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
42. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
43. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
44. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
45. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
46. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
47. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
48. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
49. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
50. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
51. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
52. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
53. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
54. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
55. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
56. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
57. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
58. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
59. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
60. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
61. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
62. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
63. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
64. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
65. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
66. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
67. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
68. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
69. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
70. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
71. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
72. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
73. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
74. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
75. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
76. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
77. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
78. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
79. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
80. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
81. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
82. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
83. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
84. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
85. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
86. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
87. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
88. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
89. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
90. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
91. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
92. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
93. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
94. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
95. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
96. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
97. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
98. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
99. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036
100. Stand-By Capacity @ PD	1,036	1,037	1,036	1,036	1,036

1 W 77 76 ECIP - Insulate R & D Buildings - \$397,753 - Completed November 1977
 2 W 77 77 ECIP - Insulation & Replace Windows - \$140,813 - Completed (estimated) June 1978



UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption to PD	1,759,556	1,667,292	1,720,057	1,771,261	1,771,624	1,712,443
2 Thermal En Cons to PD	1,585,800	1,492,400	1,534,050	1,585,975	1,481,550	1,369,675
3 Electrical En Cons to PD	173,756	184,892	186,007	185,286	189,074	142,768
4 Resident Population to PD	163	415	374	408	576	424
5 Non-Resident Population to PD	5,538	5,450	5,555	5,909	5,404	5,829
6 Population Served*** to PD	6,001	5,865	5,929	6,317	5,980	6,103
7 Effective Population*** to PD	2,242	2,332	2,226	2,378	2,377	2,437
8 En Consumption/Pop Served to PD	237.2	284.3	291.6	312.1	295.2	271.7
9 En Consumption/Enl Pop to PD	784.8	747.0	776.8	838.9	765.3	708.5
10 Electric En Consumption/Resident Population	478.7	445.5	459.3	549.2	500.1	465.5
11 Available Air Cond Capacity to PD	795	1,250	1,450	1,450	1,450	1,450
12 Elec Energy/Ton of Air Cond to PD	218.6	147.9	117.7	146.1	175.9	191.1
13 Real Property Inventory MW to PD	3,785	3,822	3,825	3,811	3,848	3,886
14 MW/Effective Population	1.59	1.71	1.72	1.60	1.62	1.61
15 Energy Consumption/GSF to PD	464,876	436,235	432,041	517,256	460,401	440,670
16 Thermal En Consumption/GSF to PD	418,970	387,860	401,264	458,403	385,538	352,464
17 Electrical En Consumption/GSF to PD	65,906	48,375	30,773	58,853	74,863	88,206
18 MW by Category						
Training	70	70	67	54	54	54
Maintenance & Production	1,048	1,056	1,055	1,037	1,028	1,032
Research, Development & Testing	581	575	580	526	569	536
Storage	871	920	209	195	193	192
Other General Storage	8	8	711	722	723	710
Hospitals & Medical	663	609	612	716	715	772
Administration	57	57	57	56	56	56
Bachelor Housing	151	163	161	161	156	166
Community Facilities	189	189	189	189	189	189
Family Housing	91	90	90	62	60	62
Operational Buildings	80	85	85	85	88	86
Utility Buildings	BASE	BASE	BASE	BASE	BASE	BASE
Other	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

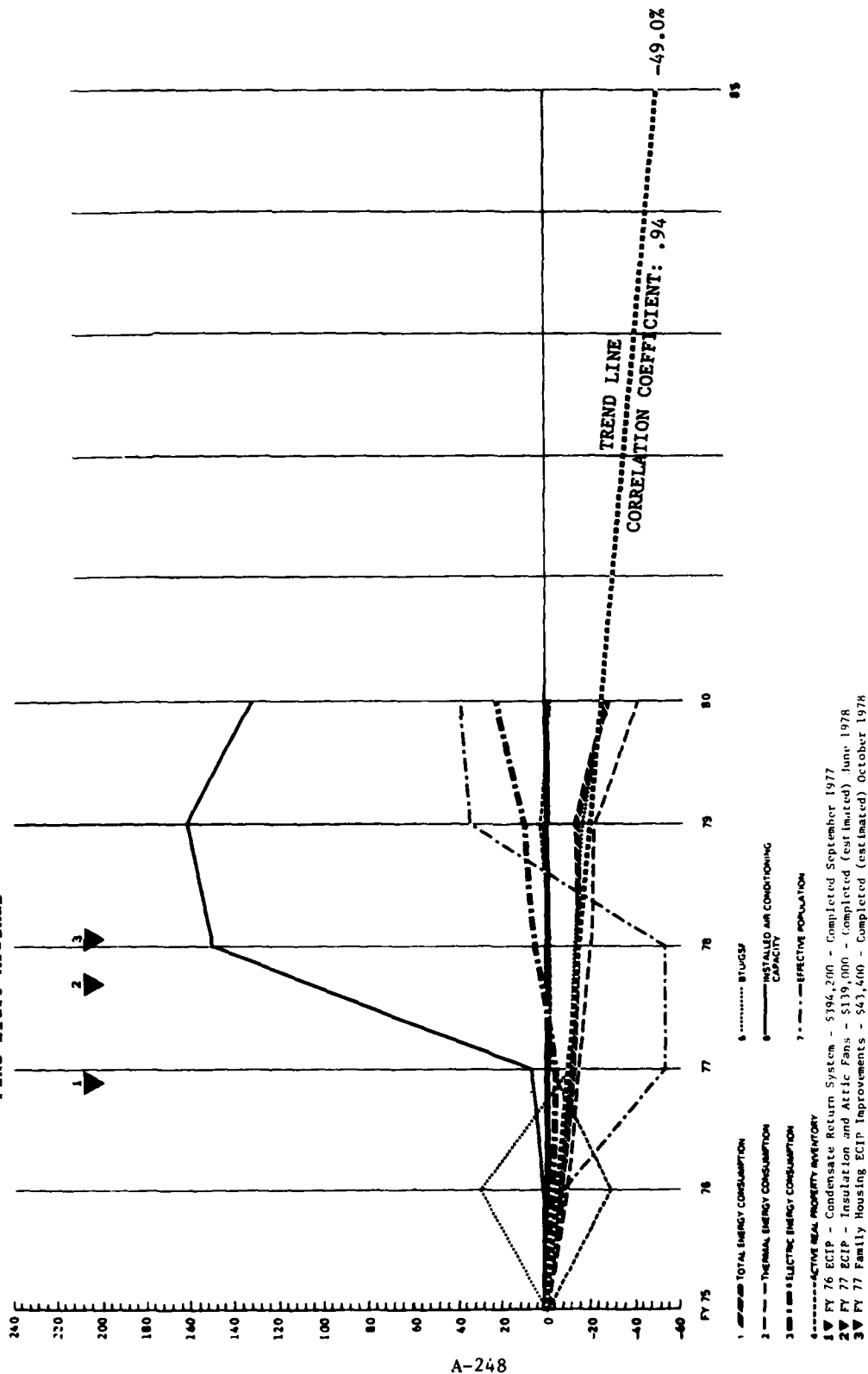
***Population Served is the total Resident & Non-Resident Population

**PD is Percent Deviation from Base Year

FY 76 ECIP - Condensate Recovery - \$2,537,036 - Completed September 1979

REMARKS

Pine Bluff Arsenal



A-248

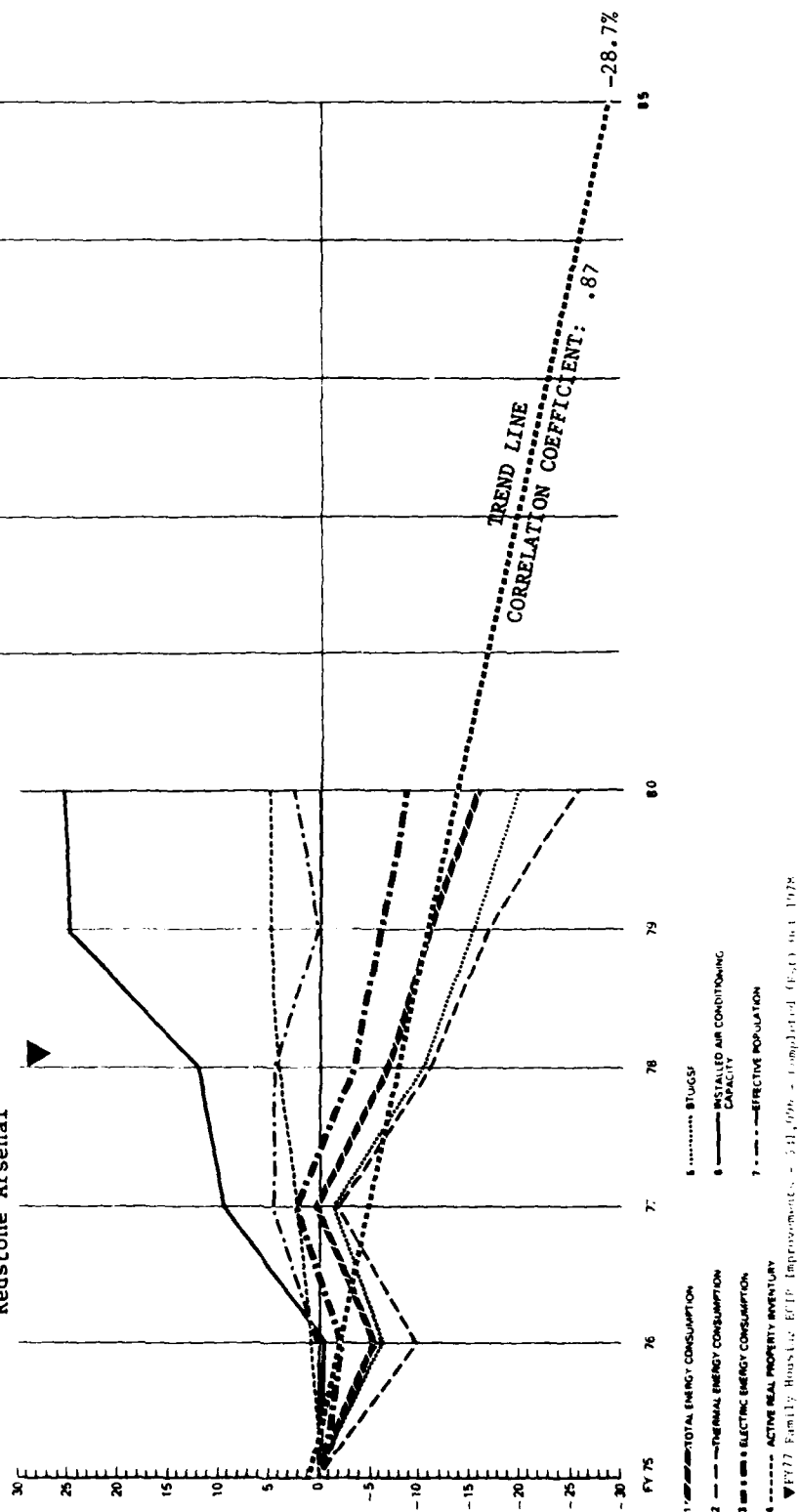
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION LINE BLUFF ARSENAL, AR MACOM DARGON CLIMATIC REGION 7 HDO 2.588 CDD 2.115

UNITARY	76	77	78	79	80
1 Energy Consumption & PD	524,328	483,287	442,761	444,081	374,941
2 Thermal En. Cost & PD	619,461	581,797	555,364	555,364	444,081
3 Electrical En. Cost & PD	104,865	101,490	100,225	110,690	127,693
4 Resident Population & PD	190	183	63	63	197
5 Non-Resident Population & PD	1,040	911	552	552	1,630
6 Population Serviced** & PD	1,210	1,116	611	611	1,827
7 Effective Population*** & PD	517	493	246	246	740
8 En. Consumption/Pop Serviced & PD	426.3	431.8	246.6	246.6	205.2
9 En. Consumption/Pop & PD	926.4	980.3	1,851.9	1,851.9	506.2
10 Electric En. Consumption/Resident Population	551.9	554.6	1,590.9	1,590.9	648.2
11 Heated Air Cond Capacity & PD	551	554	583	583	1,273
12 Elec Energy/Ton of Air Cond & PD	190.1	182.5	170.2	170.2	100.3
13 Heat Property Inventory (Btu) & PD	1,194	2,253	3,162	3,162	3,139
14 Heat Effective Population	5.95	4.57	12.85	12.85	4.74
15 Energy Consumption/GSF & PD	164,160	214,508	144,076	144,076	119,447
16 Thermal En. Consumption/GSF & PD	131,328	169,462	112,380	112,380	78,767
17 Electrical En. Consumption/GSF & PD	32,832	45,046	31,696	31,696	40,680
18 Btu by Category					
Training					
Maintenance & Production	786	748	795	875	682
Research, Development & Testing					
Storage					
Other General Storage	2,056	1,173	993	1,016	993
Hospitals & Medical					
Bachelor Housing	30	36	19	19	11
Community Facilities	100	96	104	104	94
Family Housing	71	61	67	72	69
Operational Buildings	62	62	62	62	62
Utility Buildings	4	8	7	4	27
Other	67	79	26	29	4
Net Available	BASE	BASE	BASE	BASE	BASE

PD is Percent Deviation from Base Year *Population Serviced is the total Resident & Non-Resident Population ****En Pop a Resident + 1/2 Non-Resident

- REMARKS
 1 FY 76 ECIP - Condensate Return System - \$394,200 - Completed September 1977
 2 FY 77 ECIP - Insulation and Attic Fans - \$139,000 - Completed (estimated) June 1978
 3 FY 77 Family Housing ECIP Improvements - \$41,400 - Completed (estimated) October 1978

Redstone Arsenal



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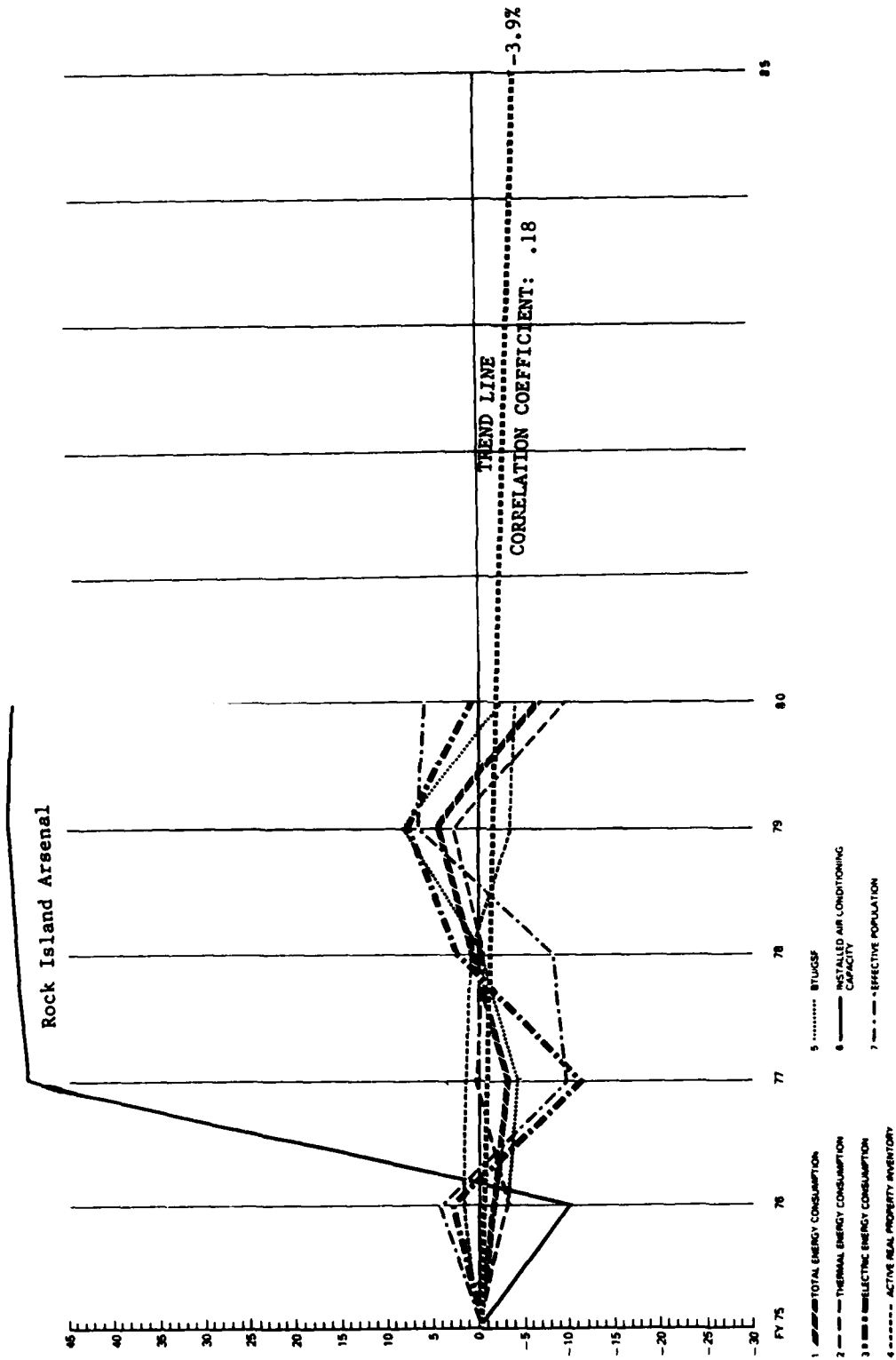
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION REDSTONE ARSENAL, ALA. MACOM DARGOM CLIMATIC REGION 4 MOD 3.302 CDD 1.818

UNIT/TYPE	76	77	78	79	80
1 Energy Consumption & PD	5,478,603	5,498,689	5,106,128	4,886,814	4,603,083
2 Thermal En. Cons. & PD	2,410,586	2,364,637	2,144,374	2,002,774	1,791,110
3 Electrical En. Cons. & PD	3,068,017	3,134,052	2,961,754	2,884,040	2,811,973
4 Resident Population & PD	6,812	6,379	6,355	6,085	6,466
5 Non-Resident Population & PD	17,218	18,837	18,835	17,973	17,632
6 Population "Servant" & PD	23,875	25,216	25,190	24,058	24,098
7 Electric Power Plant & PD	12,063	12,658	12,633	12,076	12,343
8 En. Consumption/Pop. Served & PD	229.5	218.1	202.7	203.0	191.0
9 En. Consumption/Pop. & PD	454.2	434.4	404.2	406.5	372.9
10 Electric En. Consumption/Pop. & PD	498.3	491.3	466.0	473.6	434.3
11 Industrial Air Cond. Capacity & PD	19,189	21,026	21,326	24,130	24,130
12 Elec. Energy/Ton of Air Cond. & PD	159.9	149.1	137.6	119.4	116.5
13 Fuel Property Inventory (Btu) & PD	9,090	9,284	9,436	9,538	9,561
14 Population	75	73	75	79	77
15 Energy Consumption/Pop. & PD	602,707	592,276	539,988	512,142	482,454
16 Thermal En. Consumption/Pop. & PD	265,191	237,332	226,795	209,978	187,728
17 Electrical En. Consumption/Pop. & PD	337,516	354,944	313,193	302,164	294,726
18 Btu by Category	5819	5819	5819	5819	5819
19 Training	532	571	563	567	564
20 Maintenance & Production	1,212	1,217	1,217	1,255	1,255
21 Research, Development & Testing	2,653	813	813	816	816
22 Storage	78	1,807	1,807	1,857	1,854
23 Other Command Storage	1,312	1,342	1,353	1,358	1,368
24 Hospital & Medical	586	586	586	579	578
25 Administration	389	402	456	459	482
26 Resident Housing	1,486	1,520	1,520	1,520	1,520
27 Community Facilities	120	126	126	126	126
28 Family Housing	93	105	92	92	92
29 Operational Buildings	12	12	12	11	11
30 Utility Buildings	12	12	12	11	11
31 Other	12	12	12	11	11

**PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population

VT 77 Family Housing SCIP Improvements - \$31,096 - Completed (estimated) October 1978

REMARKS



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION ROCK ISLAND ARSENAL, ILL. MACOM DARGO CLIMATIC REGION 2 HDD 5,961 CDD 1,007

UNIT/SP	76	77	78	79	80
1 Energy Consumption & PD	1,363,693	1,370,307	1,368,989	1,419,473	1,274,197
2 Thermal En Cons & PD	921,100	922,725	962,525	998,525	879,275
3 Electrical En Cons & PD	392,103	403,425	401,464	422,948	394,922
4 Resident Population & PD	239	235	229	240	260
5 Non Resident Population & PD	7,276	6,974	7,107	8,208	8,211
6 Population Served*** & PD	8,015	7,209	7,336	8,248	8,471
7 Effective Population*** & PD	2,831	2,560	2,598	3,009	2,997
8 En Consumption/Pop Served & PD	170.1	183.1	186.6	166.1	150.4
9 En Consumption/Pop & PD	481.7	513.7	526.9	471.7	425.2
10 Electric En Consumption/Pop & PD	1,641.8	1,733.4	1,753.1	1,762.3	1,518.9
11 Installed Air Cond Capacity & PD	2,159	1,940	3,238	3,273	3,265
12 Elec Energy/Ton of Air Cond & PD	181.7	107.7	123.2	129.2	121.0
13 Real Property Inventory gpm & PD	6,174	6,246	6,222	5,949	5,933
14 Real Property Inventory gpm & PD	2,18	2,44	2,39	1,981	1,98
15 Energy Consumption/GSF & PD	220,872	213,688	220,024	238,607	214,764
16 Thermal En Consumption/GSF & PD	157,321	149,366	155,501	167,511	148,201
17 Electrical En Consumption/GSF & PD	63,556	64,322	64,523	71,096	66,564
18 EPI by Category	48	127	133	128	123
19 Maintenance & Production	2,184	2,126	2,183	2,177	2,174
20 Research, Development & Training	2,021	247	247	13	13
21 Storage	9	9	9	8	7
22 Other Covered Storage	1,111	1,277	1,912	1,210	1,217
23 Hospital & Medical	215	219	204	234	232
24 Bachelor Housing	178	178	178	178	178
25 Community Facilities	27	31	31	215	217
26 Family Housing	27	31	31	100	103
27 Operational Bus Stops	27	31	31	100	103
28 Utility Buildings	27	31	31	100	103
29 Other	27	31	31	100	103

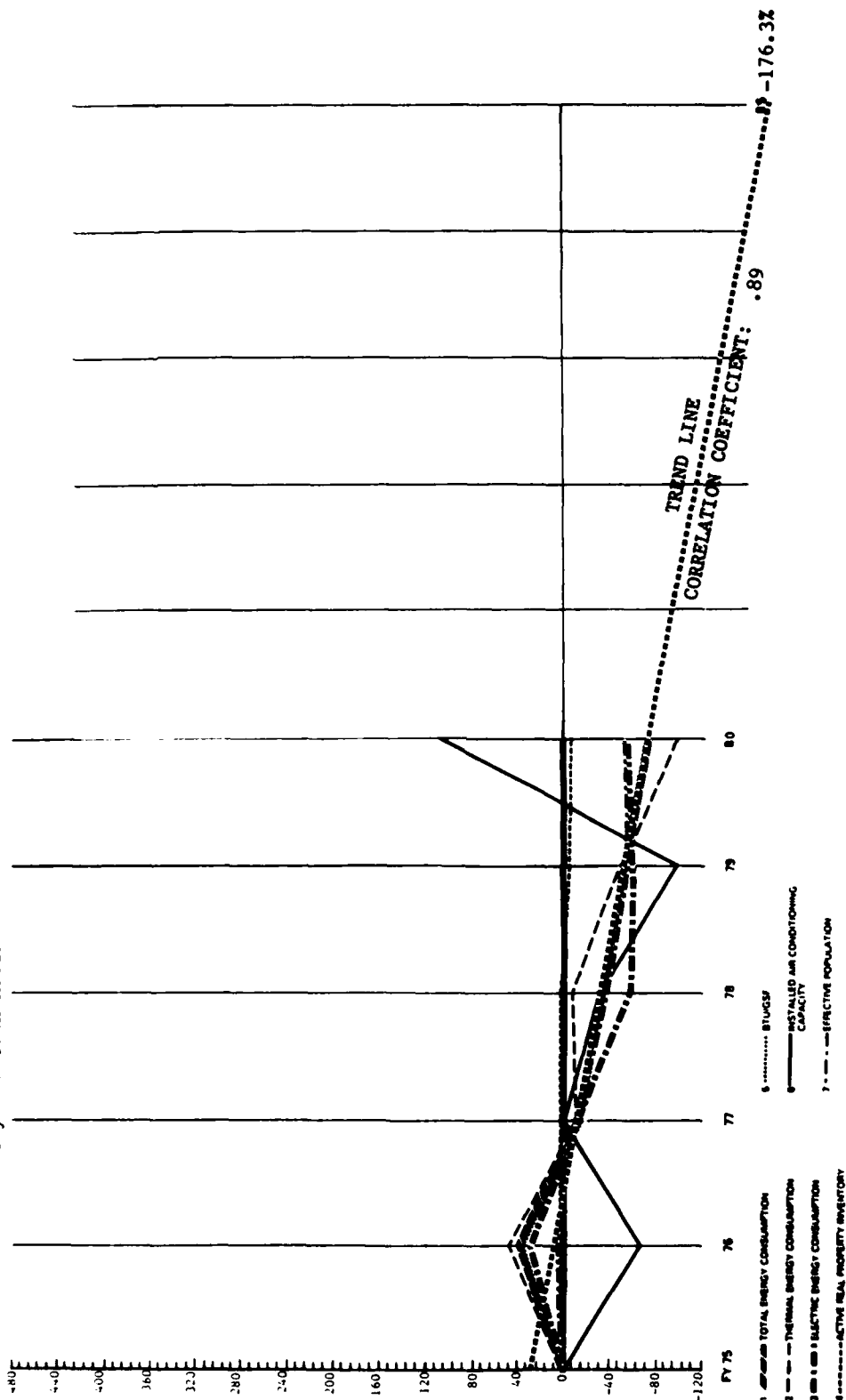
**PD is Percent Deviation from Base Year

***Population Served is the total Resident & Non-Resident Population

****EPI Page is Resident + 1/3 Non-Resident

REMARKS

Rocky Mountain Arsenal



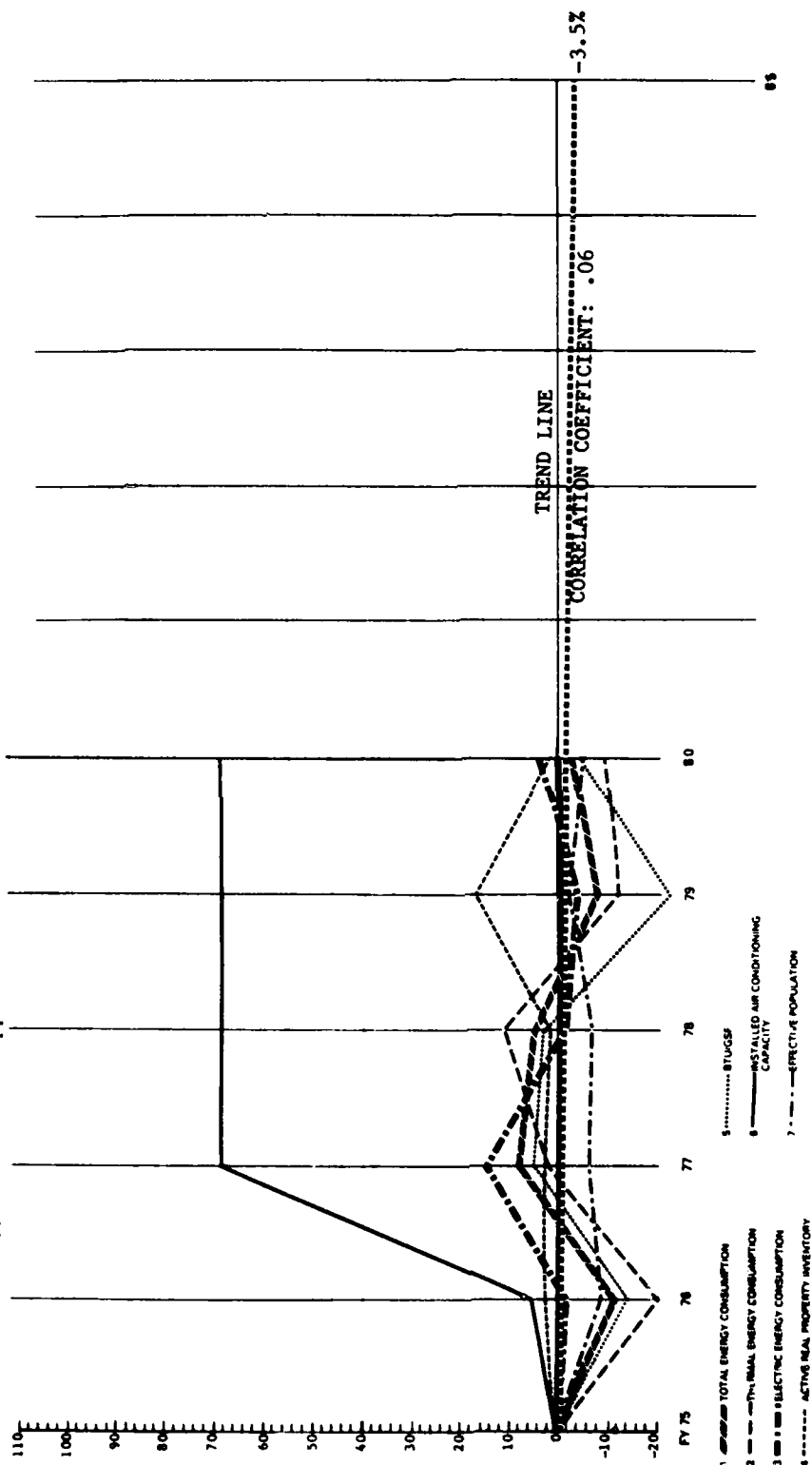
112

UNITS	75	76	77	78	79	80
1 Energy Consumption & PD	480,028	675,850	1,400,877	413,511	318,163	1-279,617
2 Thermal En. Cons. & PD	236,415	128,415	1,468,881	220,107	232,405	1-87,951
3 Electrical En. Cons. & PD	225,413	797,374	31,881	195,189	83,558	1-52,041
4 Residential Population & PD	310	314	1,361	79	47	1-57,311
5 Non-Residential Population & PD	758	758	1,756	2,261	541	1-84,511
6 Population Survey** & PD	868	870	1,021	738	588	1-63,011
7 Effective Population*** & PD	163	366	1,081	325	227	1-51,311
8 En. Consumption/Pop. Served & PD	553.0	276.8	1,405.1	508.3	541.4	1-57,611
9 En. Consumption/Pop. & PD	1,322.4	1,846.6	1,39.61	1,277.8	1,407.5	1-11,411
10 En. Consumption/Population	2,051.0	2,608.5	1,27.21	2,470.7	1,828.9	1-138.21
11 Residential En. Cons./Capcity & PD	89	10	1,866.31	89	59	1-100.1
12 En. Generation/Pop. of Air Cond. & PD	2,515.0	9,912.5	1,291.01	2,193.1	1,456.9	1-42,511
13 Heat Property Inventory (HPI) & PD	1,865	1,874	1,051	1,877	1,877	1-60.91
14 OPERATIONS Population	5,314	5,312	1,051	5,312	8,271	1-138.51
15 Energy Consumption/GSF & PD	237,388	160,646	1,400.11	221,255	169,613	1-51,411
16 Thermal En. Consumption/GSF & PD	116,414	201,962	1,48.01	121,245	123,817	1-48.11
17 Electrical En. Consumption/GSF & PD	120,972	158,684	1,311.00	100,000	46,796	1-52.11
18 WPT Air Category	80	80	80	80	80	80
19 Research & Production	685	685	686	686	686	686
20 Research, Development & Training	771	771	16	16	30	30
21 Other General Storage	744	744	744	744	726	726
22 Support & Material	18	18	18	18	18	18
23 Administration	84	84	99	99	84	84
24 Building Housing	49	49	69	69	69	69
25 Community Facilities	59	59	60	60	60	60
26 Family Housing	36	36	25	25	108	108
27 Quantitative Use Data	7	7	4	4	11	11
28 Utility Buildings	78	86	86	86	11	11

1990 = Percent Question from Base Year

STATION

St. Louis Area Support Center



UNIT/STY	76	77	78	79	80	81					
EMTU	262,429	231,453	1-11,81	284,700	1-8,31	276,745	1-5,51	240,751	1-8,31	253,653	1-3,31
EMTU	141,712	113,412	1-20,01	144,462	1-2,31	157,745	1-11,31	125,191	1-12,1	128,350	1-9,41
EMTU	120,717	118,041	1-2,21	139,258	1-15,41	139,000	1-1,41	115,560	1-4,31	125,303	1-3,81
PEOPLE	534	516	1-9,1	661	1-4,31	650	1-2,51	689	1-8,71	662	1-4,41
PEOPLE	556	516	1-2,21	323	1-41,91	336	1-39,61	330	1-40,61	336	1-39,61
PEOPLE	1,190	1,092	1-8,21	984	1-17,31	986	1-17,11	1,019	1-14,41	998	1-16,11
PEOPLE	819	748	1-8,71	769	1-6,21	762	1-7,01	799	1-2,41	724	1-5,51
EMTU/CAP	220,5	212,0	1-3,91	288,8	1-31,01	280,7	1-27,31	236,3	1-7,10	254,2	1-15,31
EMTU/CAP	320,4	304,4	1-3,41	369,6	1-15,31	363,2	1-13,31	303,3	1-6,61	327,7	1-2,31
EMTU/CAP	190,4	204,9	1-7,61	210,7	1-10,61	183,1	1-3,81	167,7	1-11,91	189,3	1-0,61
TONS	754	798	1-5,81	1,271	1-68,61	1,271	1-68,61	1,271	1-68,61	1,271	1-68,61
INSTITUTION	160,1	167,9	1-7,61	109,6	1-31,61	93,6	1-41,51	90,9	1-43,21	98,6	1-38,41
ESP	2,698	2,773	1-2,81	2,772	1-2,71	2,755	1-2,11	3,161	1-17,21	2,740	1-1,61
ESP/CAP	3,29	3,71	1-12,51	3,601	1-9,41	3,62	1-9,81	3,961	1-20,11	3,54	1-7,51
BTU/CAP	97,268	83,467	1-14,21	102,525	1-5,41	100,452	1-3,31	76,163	1-21,71	92,574	1-4,81
BTU/CAP	52,525	40,899	1-22,11	52,288	1-0,51	57,258	1-9,01	39,605	1-24,61	46,843	1-10,81
BTU/CAP	44,161	62,568	1-4,91	50,237	1-12,31	43,194	1-3,51	36,538	1-18,31	45,731	1-7,21
ESP	147	127		127		112		131		109	
ESP	30	30		30		23		12		12	
ESP	2,070	2,058		2,058		2,040		2,437		2,035	
ESP	7	7		7		7		7		7	
ESP	50	50		50		64		93		93	
ESP	77	77		77		77		77		77	
ESP	145	139		135		214		179		183	
ESP	206	206		206		206		212		211	
ESP	8	8		8		2		1		1	
ESP	10	10		10		10		10		10	
Not Available											

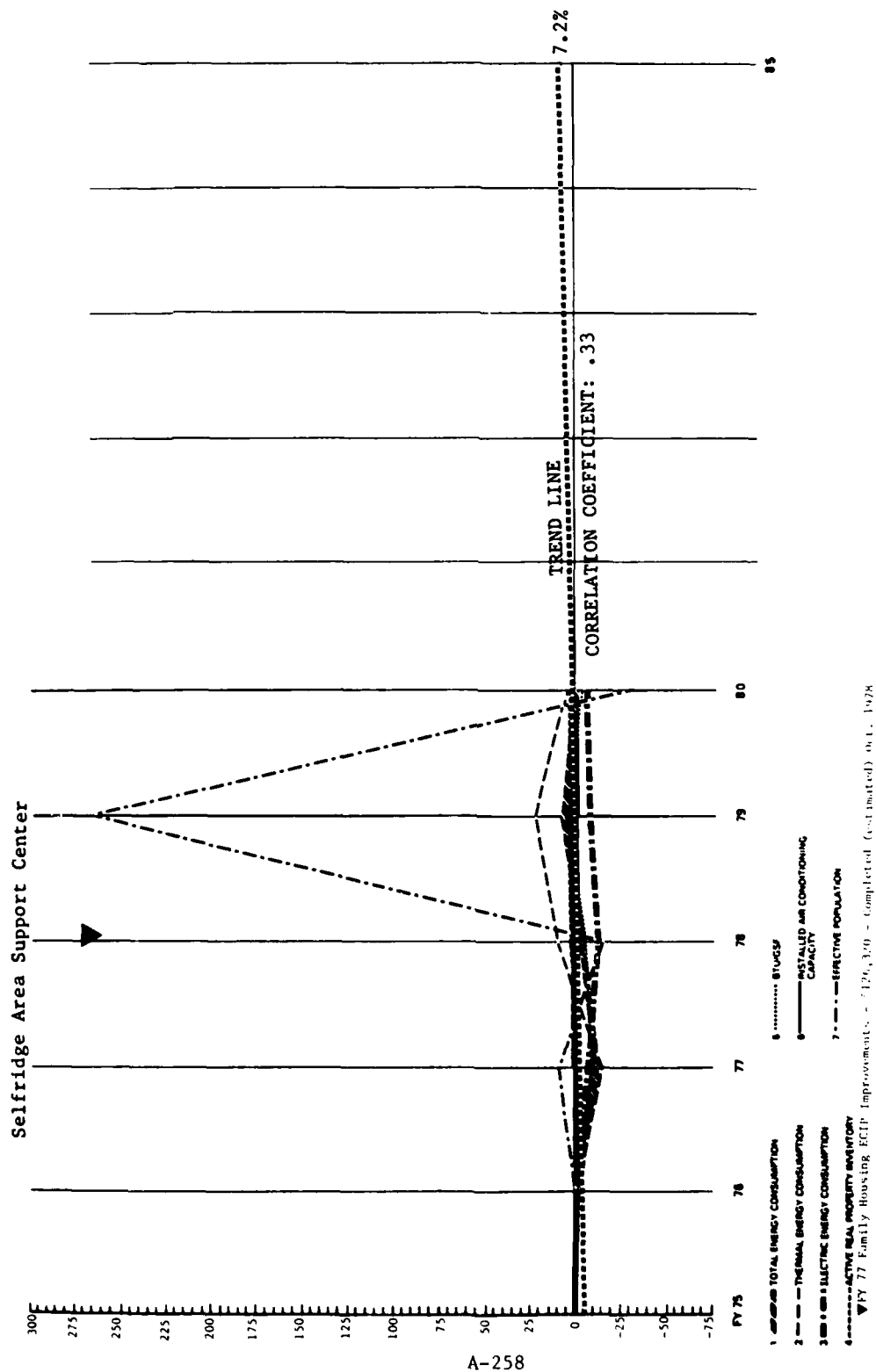
- 1 Energy Consumption & PD
 - 2 Thermal En. Cons & PD
 - 3 Electrical En. Cons & PD
 - 4 Residential Population & PD
 - 5 Non-Residential Population & PD
 - 6 Population Service*** & PD
 - 7 Effective Population*** & PD
 - 8 En. Consumption/Pop. Served & PD
 - 9 En. Consumption/Pop. & PD
 - 10 Electric En. Consumption/Residence & PD
 - 11 Institutional Air Cond. Capacity & PD
 - 12 Electric Energy/Ton of Air Cond. & PD
 - 13 Real Property Inventory (RPI) & PD
 - 14 Institutional Population
 - 15 Energy Consumption/POP & PD
 - 16 Thermal En. Consumption/CAP & PD
 - 17 Electrical En. Consumption/CAP & PD
 - 18 RPI by Category
- Training
Maintenance & Production
Research, Development & Testing
Storage
Other Command Storage
Hospital & Medical
Administration
Barracks Housing
Community Facilities
Family Housing
Quartermaster Buildings
Utility Buildings
Other

***ESP Pop & Numbers + 100 Non-Residential

PD is Percent Distribution from Base Year

Population Served is the total Population & Non-Residential Population

REMARKS



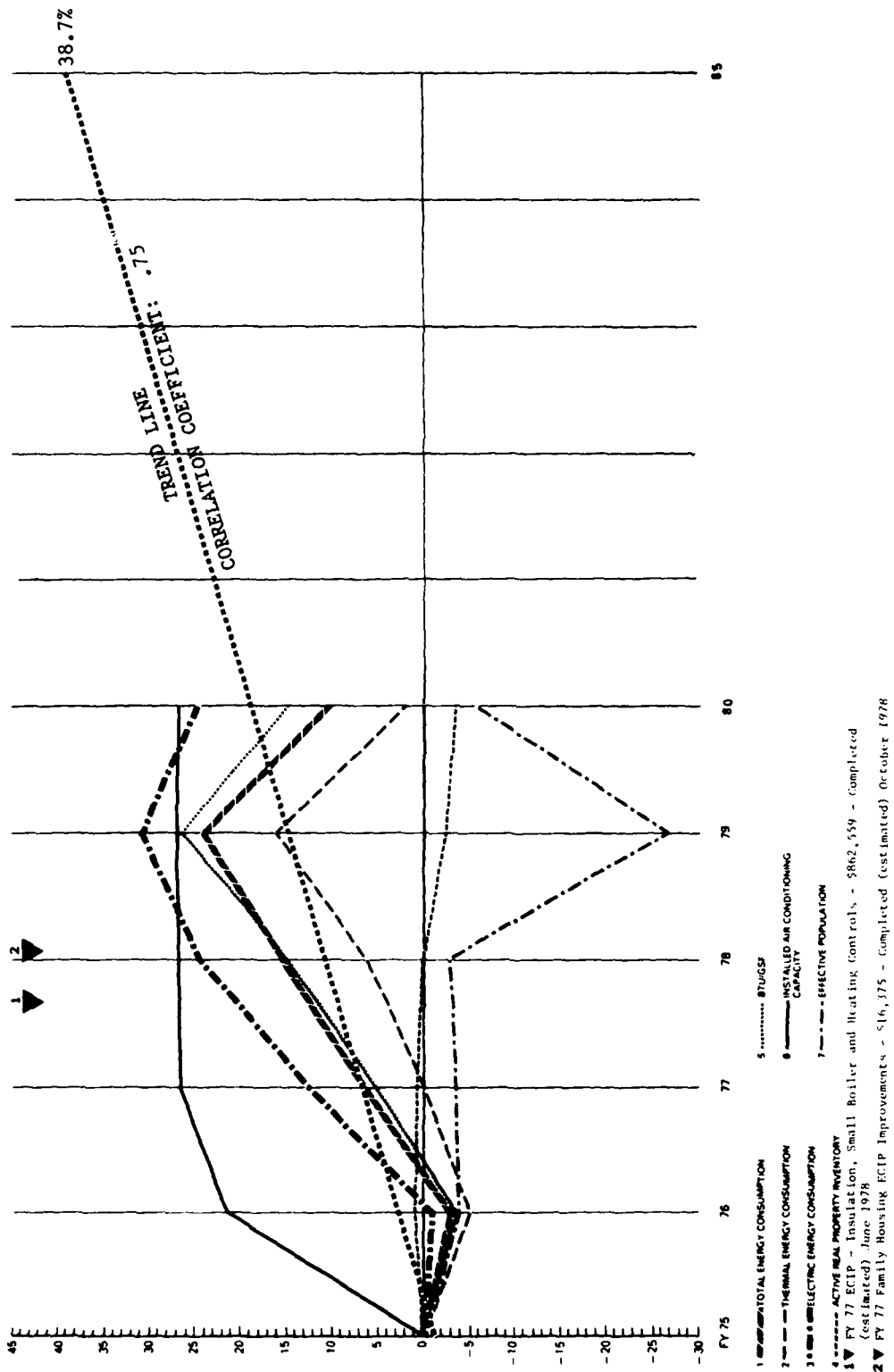
A-258

UNIT/STY	75	76	77	78	79	80
1 Energy Consumption & PD	112,000	112,000	106,389	115,283	123,826	114,710
2 Thermal En Core & PD	58,500	58,500	50,959	64,671	70,581	60,329
3 Electrical En Core & PD	58,500	58,500	56,330	50,812	53,245	54,381
4 Resident Population & PD	6,000	6,000	6,100	3,198	21,773	4,128
5 Non Resident Population & PD	1,313	1,313	1,313	3,725	180	1,301
6 Population Served** & PD	7,313	7,313	7,413	6,923	21,953	4,429
7 Effective Population*** & PD	6,418	6,418	6,538	5,106	21,833	4,346
8 En Consumption/Pop Served & PD	10.5	10.5	14.1	12.9	5.6	17.1
9 En Consumption/PH Pop & PD	16.0	16.0	15.0	12.6	5.7	17.0
10 En Consumption/Residence Population	0.1	0.1	0.1	0.1	0.1	0.1
11 Installed Air Cond Capacity & PD	258	258	258	258	258	258
12 Electric En Consumption/PH Pop & PD	2,000	2,000	2,102	1,947	2,050	2,040
13 Electric En Consumption/Residence Population	33.1	33.1	30.1	31.1	30.9	31.1
14 HPH En Consumption/PH Pop & PD	58,500	58,500	52,985	55,574	60,403	56,230
15 Energy Consumption/GSF & PD	21,200	21,200	21,385	31,122	34,470	29,573
16 Thermal En Consumption/GSF & PD	21,200	21,200	21,385	31,122	34,470	29,573
17 Electrical En Consumption/GSF & PD	10	10	10	10	10	10
18 HPH En Consumption/GSF & PD	10	10	10	10	10	10
19 Training	51	51	51	51	51	51
20 Maintenance & Production	33	33	33	33	33	33
21 Research, Development & Training	23	23	23	23	23	23
22 Storage	25	25	25	25	25	25
23 Other Covered Storage	16	16	16	16	16	16
24 Hospital & Medical	166	166	166	166	166	166
25 Administration	1,662	1,662	1,662	1,662	1,662	1,662
26 Bachelor Housing	4	4	4	4	4	4
27 Community For Rent	10	10	10	10	10	10
28 Family Housing	10	10	10	10	10	10
29 Operational Bus Stops	10	10	10	10	10	10
30 Utility Buildings	10	10	10	10	10	10
31 Other	10	10	10	10	10	10

REMARKS In FY 75, Selfridge was a sub-activity of Ft Sheridan, IL and all data pertaining to Selfridge was included in the Ft Sheridan report. In FY 76, Selfridge was transferred to DARGOY and has been reported separately since then. The FY 75 data shown hereon is estimated only and FY76 data has been used as the base year. Population data for FY78 & FY79 appear- to be in error.

▼ FY 77 Family Housing ECIP Improvements - \$126,320 - Completed (estimated) October 1978

Watervliet Arsenal



U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION WATERLIEF ARSENAL, NY MACOM PARSONS CLIMATIC REGION 7 MOD 8.193 CDD 651

UNITARY	76	77	78	79	80
1 Energy Consumption to PD	219,107	216,255	215,594	215,111	214,763
2 Thermal En Cons to PD	376,965	376,128	377,071	379,808	381,825
3 Electrical En Cons to PD	362,162	358,127	358,593	359,925	361,938
4 Resident Population to PD	2,722	2,665	2,598	2,541	2,488
5 Non Resident Population to PD	2,629	2,565	2,502	2,445	2,392
6 Population Served** to PD	2,352	2,332	2,301	2,286	2,280
7 Effective Population*** to PD	1,165	1,120	1,101	1,131	1,103
8 En Consumption/Pop Served to PD	250.5	253.0	252.6	252.2	252.2
9 En Consumption/Pop to PD	616.4	619.5	627.2	627.2	627.2
10 Electric En Consumption/Resident Population	1,331.5	1,346.3	1,371.1	1,379.4	1,386.9
11 Installed Air Cond Capacity to PD	891	1,087.2	1,136	1,136	1,136
12 Elec Energy/Ton of Air Cond to PD	403.2	329.5	359.6	359.6	359.6
13 Real Property Inventory (RPI) to PD	2,158	2,125	2,174	2,160	2,105
14 RPI/Resident Population	1.85	1.94	1.93	1.91	1.88
15 Energy Consumption/GSF to PD	342.496	329.313	361.365	393.890	433.667
16 Thermal En Consumption/GSF to PD	174.623	164.656	173.446	185.129	204.160
17 Electrical En Consumption/GSF to PD	167.823	164.656	187.899	208.763	225.507
18 RPI by Category					
Training	1,206	1,201	1,201	1,195	1,142
Maintenance & Production	200	200	200	184	189
Research, Development & Testing	318	319	319	269	262
Storage					
Other Covered Storage					
Hospital & Medical					
Administration					
Sanitary Housing					
Community Facilities					
Family Housing					
Quartermaster Buildings					
Utility Buildings					
Other					

PD is Percent Deviation from Base Year **Population Served is the total Resident & Non Resident Population *En Pop is Resident + 1/3 Non-Resident

REMARKS 1 FY 77 ECIP - Insulation, Small Boiler and Heating Controls - \$862,559 - Completed (estimated) June 1978
2 FY 77 Family Housing ECIP Improvements - \$16,375 - Completed (estimated) October 1978

White Sands Missile Range



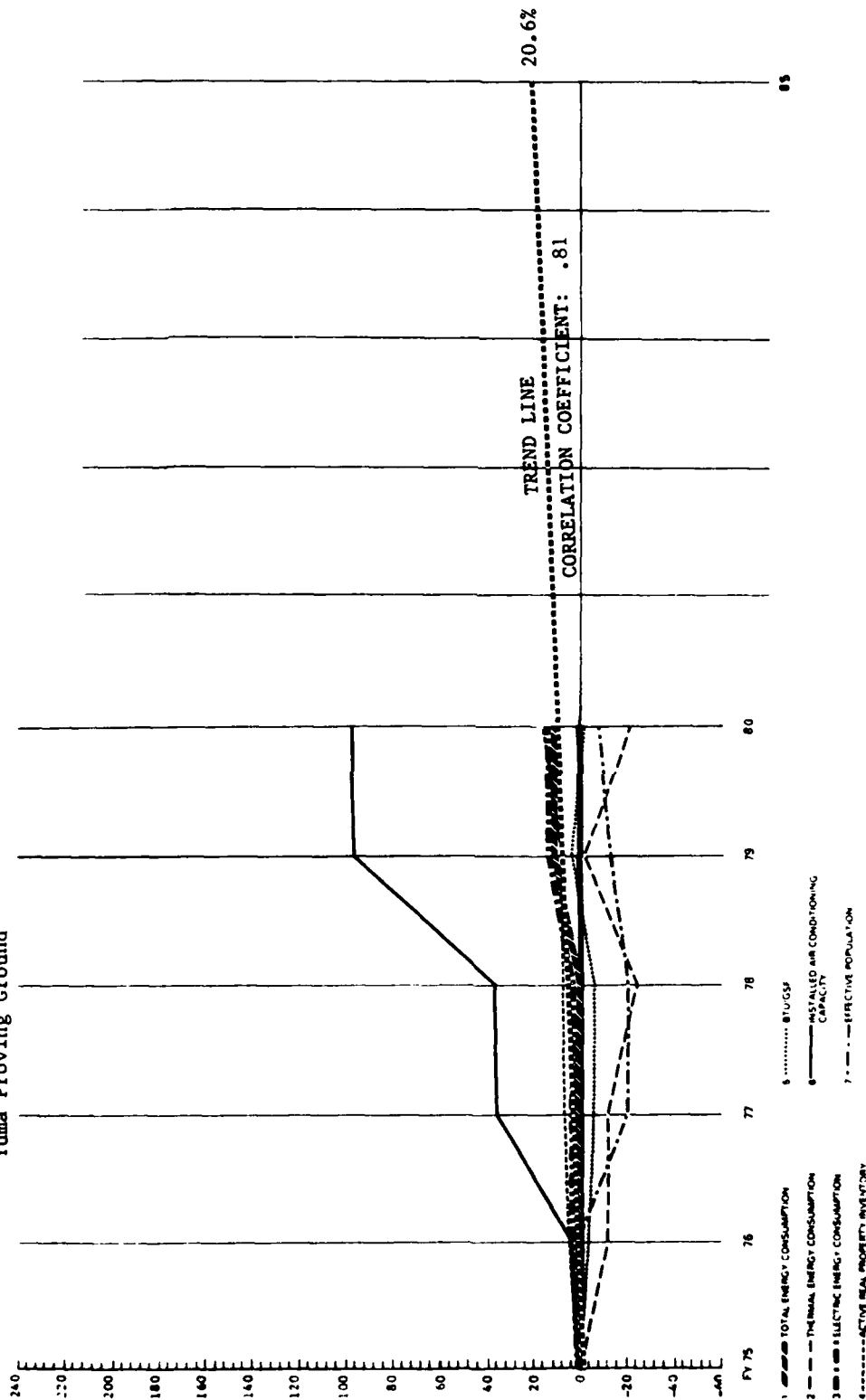
U.S. Army ANALYSIS OF ENERGY CONSUMPTION - INSTALLATION WHITE SANDS MISSILE RANGE, N.M. MACOM, DARGEN CLIMATIC REGION 2 MOD 2.524 CDD 2.211

UNIT/STY	75	76	77	78	79	80
WRTU	1,321,251	1,094,275	1,372,211	1,166,880	1,275,306	1,103,251
WRTU	556,926	361,111	714,836	326,755	167,592	101,621
WRTU	766,325	733,164	657,375	840,125	857,714	802,128
PEOPLE	1,375	1,375	1,375	1,375	1,375	1,375
PEOPLE	2,000	5,512	1,175,611	5,512	1,175,611	5,512
PEOPLE	5,420	6,887	1,273,111	8,950	1,175,611	5,420
PEOPLE	4,087	3,212	1,273,111	5,199	1,175,611	4,087
WRTUCAP	243.8	328.9	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	323.1	360.2	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	224.1	533.2	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	9,340	13,210	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	82.2	53.5	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	1,24	1,51	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	260,602	226,277	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	109,453	74,671	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	151,149	151,608	1,372,211	1,166,880	1,275,306	1,103,251
WRTUCAP	32	32	32	32	32	32
WRTUCAP	323	323	323	323	323	323
WRTUCAP	1,462	1,438	1,438	1,438	1,438	1,438
WRTUCAP	468	468	468	468	468	468
WRTUCAP	61	61	61	61	61	61
WRTUCAP	454	454	454	454	454	454
WRTUCAP	160	160	160	160	160	160
WRTUCAP	257	257	257	257	257	257
WRTUCAP	1,173	1,173	1,173	1,173	1,173	1,173
WRTUCAP	459	459	459	459	459	459
WRTUCAP	21	21	21	21	21	21
WRTUCAP	62	62	62	62	62	62

- 1 Energy Consumption by PD
- 2 Thermal En. Cons. by PD
- 3 Electrical En. Cons. by PD
- 4 Resident Population by PD
- 5 Non-Resident Population by PD
- 6 Population Served by PD
- 7 Effective Population by PD
- 8 En. Consumption by PD
- 9 En. Consumption by PD
- 10 Electric En. Consumption by PD
- 11 Electric En. Consumption by PD
- 12 Electric En. Consumption by PD
- 13 Fuel Property Inventory by PD
- 14 APPEL Property Inventory by PD
- 15 Energy Consumption by PD
- 16 Thermal En. Consumption by PD
- 17 Electrical En. Consumption by PD
- 18 WPI by Category

REMARKS

Yuma Proving Ground



UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	109,095	109,078	110,231	108,906	114,017	138,931
2 Thermal En Cons & PD	25,278	21,400	21,252	18,560	24,082	19,200
3 Electrical En Cons & PD	285,367	284,279	288,979	290,346	319,415	319,731
4 Resident Population & PD	3,625	1,480	1,095	1,080	1,219	1,273
5 Non Resident Population & PD	285	290	279	925	916	1,005
6 Population Served** & PD	1,960	1,970	2,064	2,014	2,135	2,278
7 Effective Population*** & PD	1,270	1,277	1,411	1,397	1,524	1,608
8 En Consumption/Pop Served & PD	157.7	157.3	150.5	153.4	160.8	168.8
9 En Consumption/Pop & PD	176.6	174.4	220.2	221.2	225.7	210.8
10 Electric En Consumption/Residence Population	169.8	171.4	266.3	266.7	262.5	251.2
11 Installed Air Cond Capacity & PD	3,000	3,029	5,083	4,093	5,876	5,876
12 Elec Energy/ton of Air Cond & PD	94.8	94.2	70.8	71.0	56.4	56.4
13 Heat Property Inventory RPT & PD	1,311	1,311	1,404	1,409	1,408	1,490
14 RPT Effective Population	74	77	1,400	1,401	1,408	1,490
15 Energy Consumption/GSF & PD	235,270	227,925	221,318	214,302	244,330	227,470
16 Thermal En Consumption/GSF & PD	18,862	15,955	15,403	13,158	17,104	12,886
17 Electrical En Consumption/GSF & PD	216,908	211,970	205,915	206,144	227,226	214,585
18 RPT by Category						
Training						
Maintenance & Production	166	137	136	136	140	214
Research, Development & Testing	272	274	280	281	281	284
Storage	118	135	60	60	60	60
Other Command Storage						
Hospital & Medical	31	33	113	108	105	108
Administration	76	104	109	113	113	113
Bachelor Housing	173	176	176	170	170	170
Community Fire Base	109	130	132	132	132	132
Family Housing	160	350	360	360	360	360
Operational Bar Area	21	21	20	25	23	23
Utility Buildings	3	7	7	10	10	10
Other						

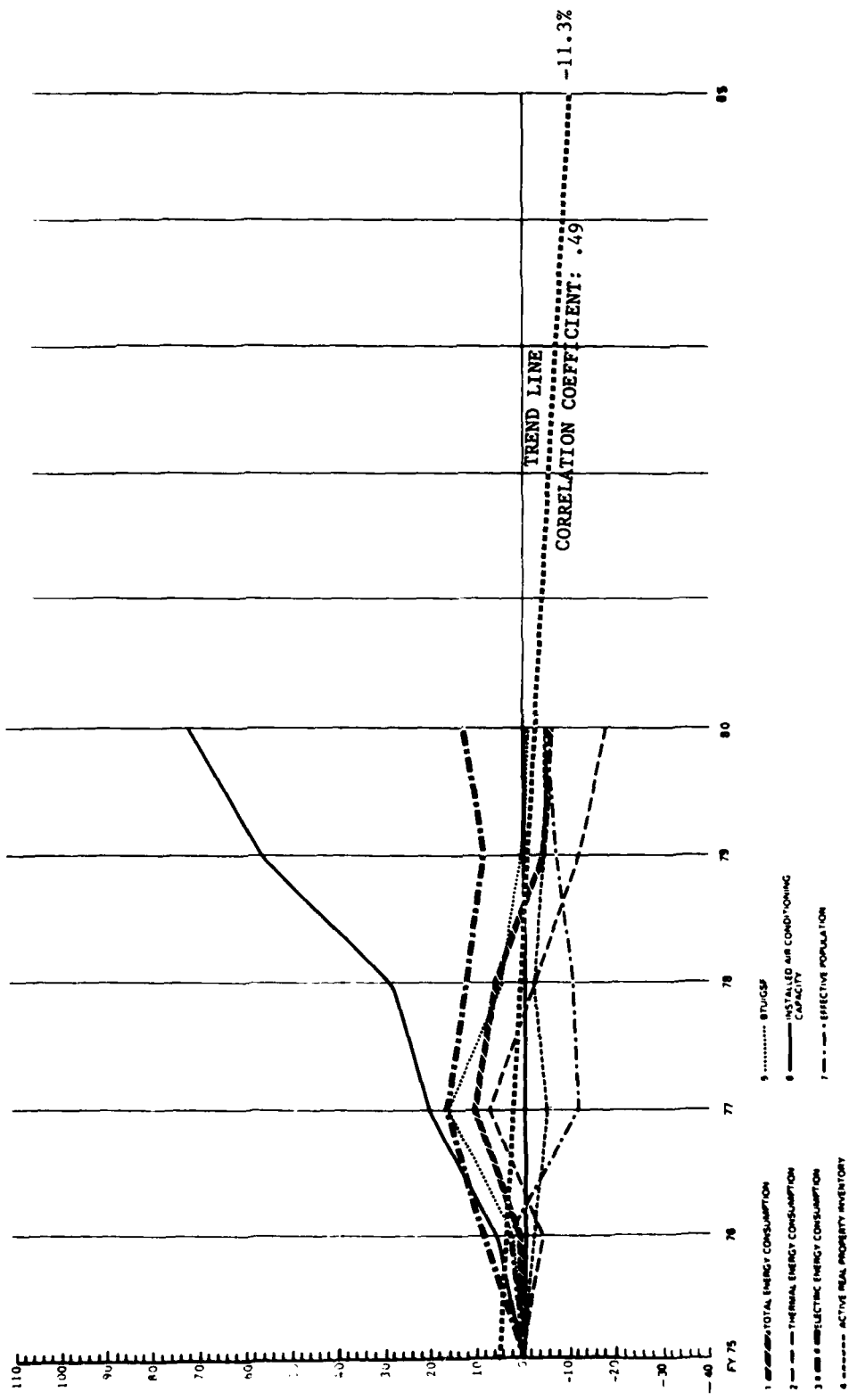
**Population Served is the total Resident & Non-Resident Population

*PD is Percent Distribution from Base Year

***RPT Pop is Resident + 1/3 Non-Resident

REMARKS

Eighth US Army-Korea



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION Korea MACOM EUSA

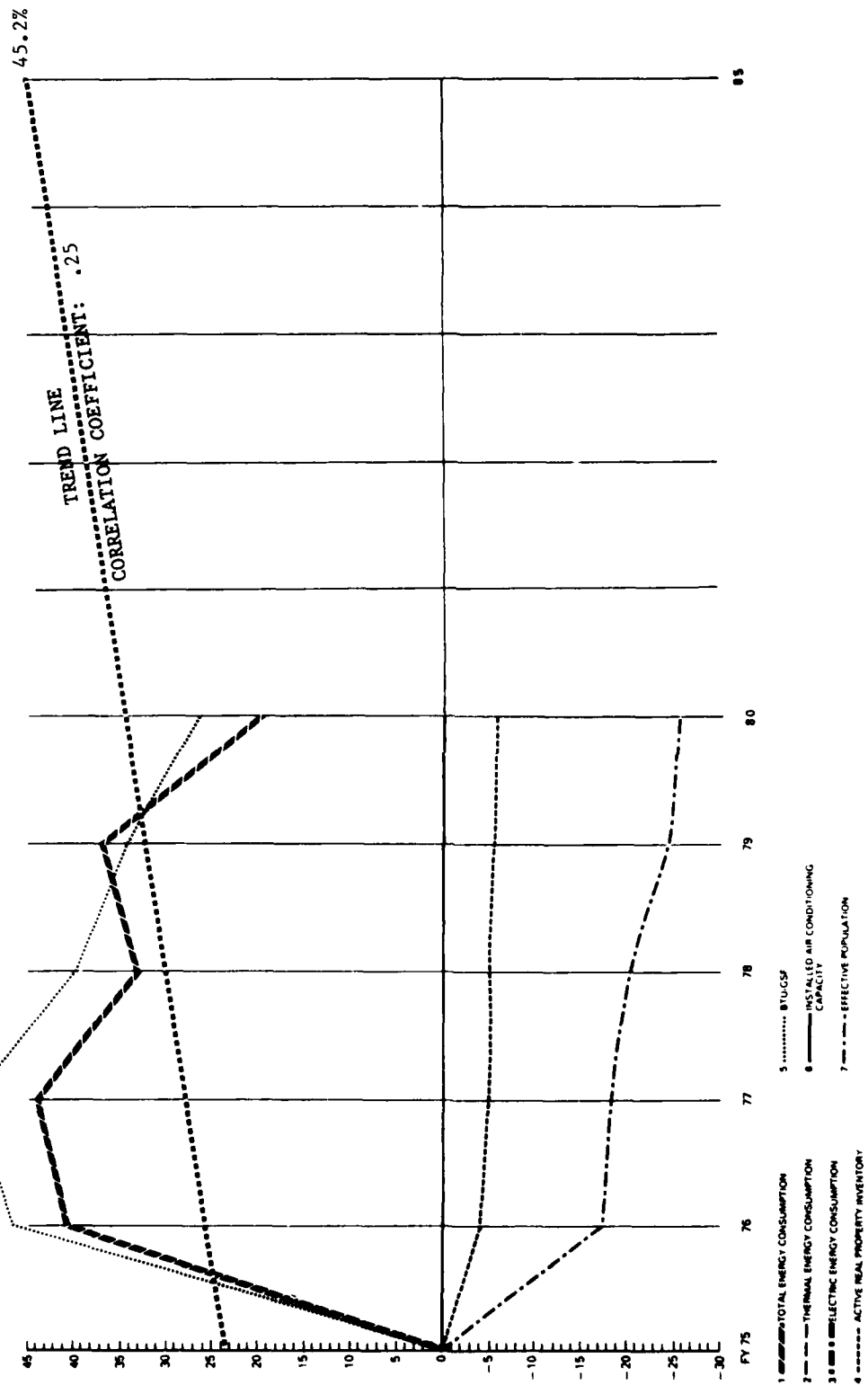
UNIT/Category	75	76	77	78	79	80
1 Energy Consumption to PD	6,835,497	6,901,397	7,581,506	7,054,968	6,520,759	6,401,956
2 Thermal En. Cons. to PD	4,291,675	4,120,375	4,607,950	4,178,075	3,757,825	3,517,175
3 Electrical En. Cons. to PD	2,543,822	2,780,822	2,973,556	2,876,893	2,762,934	2,884,781
4 Resident Population to PD	44,157	40,316	37,611	33,411	30,345	28,895
5 Non-Resident Population to PD	75,530	81,882	73,073	72,708	74,532	75,194
6 Population Served** to PD	119,687	122,198	110,684	106,119	104,877	104,089
7 Electric Population*** to PD	56,014	51,965	49,432	50,457	51,987	52,995
8 En. Consumption/Pop Served to PD	85.7	85.0	101.8	97.2	100.0	95.1
9 En. Consumption/Pop to PD	122.0	119.1	153.4	139.8	125.4	120.8
10 Electric En. Consumption/Resident Population	57.6	60.0	79.1	73.0	68.2	68.9
11 Installed Air-Cond Capacity to PD	6,015	6,424	7,289	7,764	9,455	10,361
12 Elec Energy/Ton of Air-Cond to PD	422.9	432.9	408.0	370.5	329.1	278.4
13 Elec Energy/Person to PD	23,326	22,852	22,126	22,842	22,210	22,022
14 kWh/Person to PD	42	39	45	45	43	42
15 Energy Consumption/GSF to PD	293,042	302,004	342,652	308,860	293,596	290,707
16 Thermal En. Consumption/GSF to PD	183,987	180,316	208,260	182,912	169,195	159,712
17 Electrical En. Consumption/GSF to PD	109,055	121,688	134,392	125,948	124,401	130,995
18 kWh by Category						
Training	162	151	163	163	160	176
Maintenance & Production	2,250	2,229	2,368	2,359	2,319	2,219
Research, Development & Testing	11	14	14	19	16	19
Storage	4,503	3,967	3,363	3,070	3,137	3,225
Other General Storage	371	353	357	351	337	351
Hospital & Medical	1,739	1,827	1,827	1,845	1,852	1,877
Administration	7,981	7,774	7,580	8,223	7,839	7,699
Bachelor Housing	3,668	3,751	3,497	3,733	3,764	3,806
Community Facilities	823	870	871	859	873	879
Family Housing	1,417	1,178	1,112	1,095	1,122	1,060
Quartermaster Bldg	401	513	494	435	425	422
Utility Buildings						
Other	Not Available	125	117	111	121	117

**Population Served is the total Resident & Non-Resident Population

***En Pop is Resident + 1/3 Non-Resident

REMARKS

Ballistic Missile Defense Systems Command



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION OVERSEAS

MACOM BHDC

UNITS/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	31,950	44,900	45,975	42,500	40,500	38,225
2 Thermal En Cons & PD	31,950	44,900	45,975	42,500	40,500	38,225
3 Electrical En Cons & PD	0	0	0	0	0	0
4 Personnel Population & PD	3,905	3,236	3,193	3,120	2,955	2,913
5 Non-Resident Population & PD	35	19	22	25	25	22
6 Personnel Servant** & PD	3,940	3,255	3,215	3,145	2,980	2,935
7 Electric Population*** & PD	3,917	3,242	3,200	3,128	2,963	2,920
8 En Consumption/Pop Served & PD	8.1	13.8	14.3	13.5	13.6	13.6
9 En Consumption/EF Pop & PD	8.2	13.8	14.4	13.6	13.7	13.7
10 Electric En Consumption/Person Population	0	0	0	0	0	0
11 Installed Air Cond Capacity & PD	0	0	0	0	0	0
12 Elec Energy/Ton of Air Cond & PD	2,646	2,539	2,520	2,520	2,500	2,500
13 Inst Property Inventory (RPR) & PD	.68	.78	.79	.81	.84	.86
14 Installation Population	12,075	17,684	18,244	16,865	16,200	15,290
15 Energy Consumption/GSF & PD	12,075	17,684	18,244	16,865	16,200	15,290
16 Thermal En Consumption/GSF & PD	0	0	0	0	0	0
17 Electrical En Consumption/GSF & PD	0	0	0	0	0	0
18 RPR by Category						
Training						
Maintenance & Production						
Research, Development & Testing						
Storage						
Other Covered Storage						
Hospital & Medical						
Administration						
Bachelor Housing						
Community Feeder						
Family Housing						
Operational Buildings						
Utility Buildings						
Other						
Net Available						
BASE						

**PD is Percent Deviation from Base Year

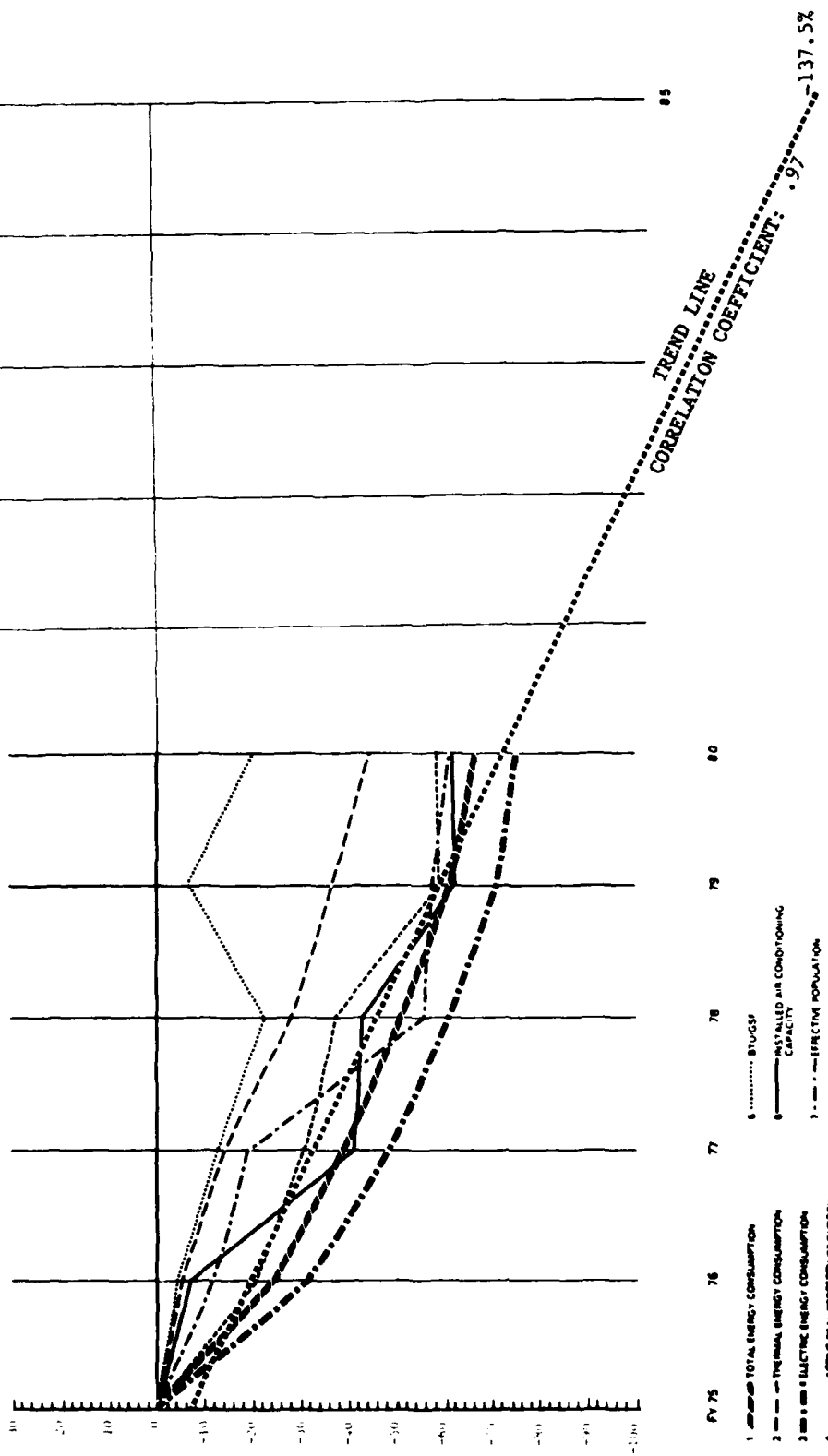
**Population Served is the total Residents & Non-Resident Population

**EF Pop is Resident + 1/2 Non-Resident

Electric Energy is Generated On-Site

REMARKS

US Army-Japan



U.S. Army ANALYSIS OF ENERGY CONSUMPTION, INSTALLATION CONSOLIDATION MALCOM TSPART

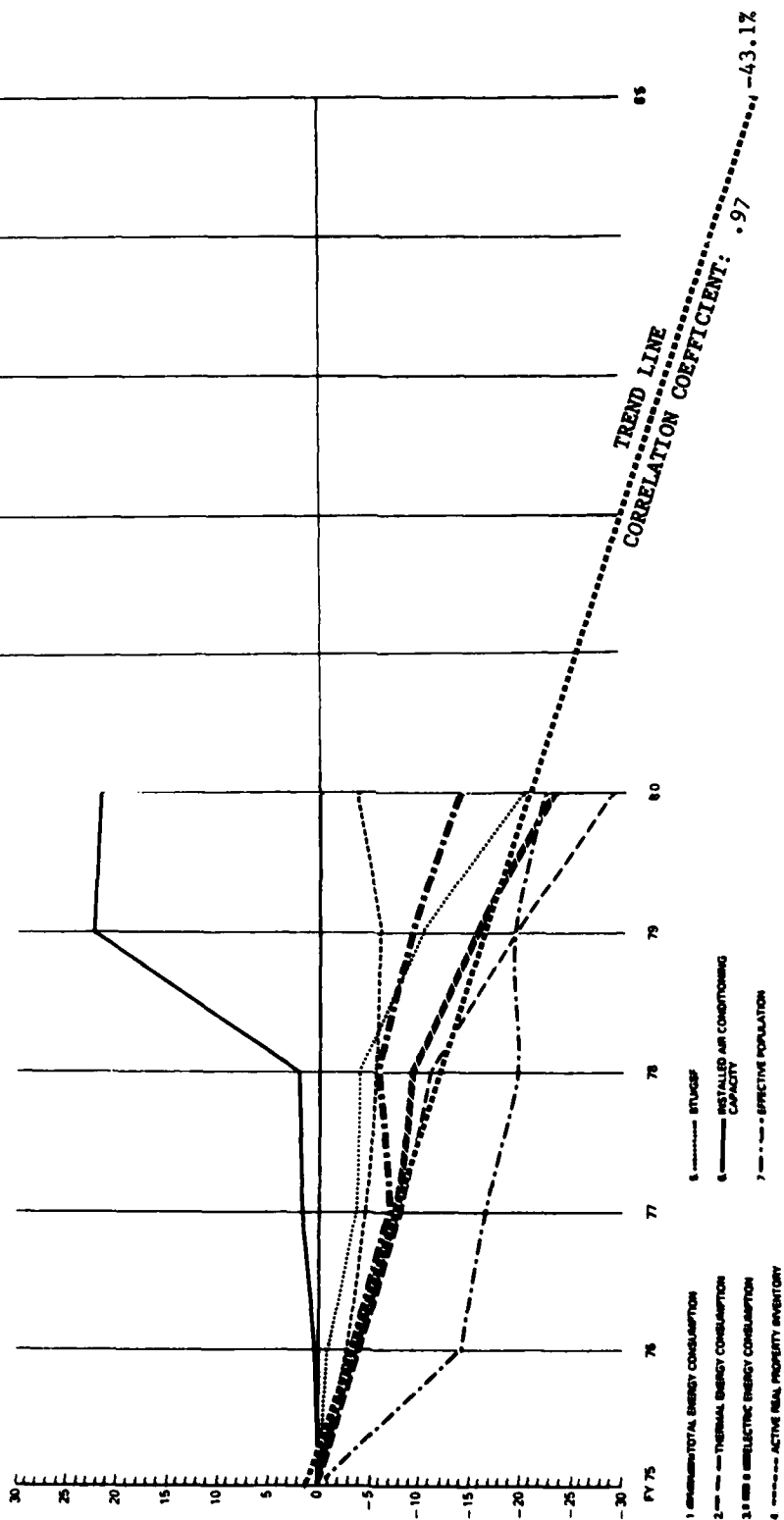
UNIT/STY	75	76	77	78	79	80
1 Energy Consumption & PD	4,280,528	1,257,989	2,612,383	2,094,553	1,666,224	1,445,486
2 Thermal En Cons & PD	1,239,175	1,171,375	1,048,400	889,155	778,325	686,600
3 Electrical En Cons & PD	1,041,253	2,071,714	1,563,983	1,205,428	887,899	758,886
4 Resident Population & PD	19,176	16,498	14,777	6,356	6,231	6,172
5 Non Resident Population & PD	20,123	18,886	18,178	15,560	14,272	12,275
6 Population Serviced** & PD	39,299	35,384	33,155	21,916	20,505	18,447
7 Effective Population*** & PD	25,884	22,793	20,903	11,543	10,290	10,264
8 En Consumption/Pop Serviced & PD	108.9	91.7	78.4	95.6	81.3	78.4
9 En Consumption/Pop & PD	165.4	142.3	125.0	181.5	151.6	140.8
10 Electrical En Consumption/Resident Population	158.6	125.7	104.5	189.6	142.5	123.0
11 Installed Air Cond Capacity & PD	17,813	16,515	10,658	10,318	6,820	6,964
12 Elec Energy/Ton of Air Cond & PD	170.7	125.4	134.9	116.8	130.2	109.0
13 Real Property Inventory (RPI) & PD	29,027	19,017	16,742	15,147	9,976	10,175
14 RPI/Effective Population	.93	.83	.80	.81	.91	.98
15 Energy Consumption/GSF & PD	178,151	170,531	156,038	138,282	161,023	143,062
16 Thermal En Consumption/GSF & PD	51,574	61,591	63,816	58,713	78,020	67,479
17 Electrical En Consumption/GSF & PD	126,577	108,940	92,222	79,569	83,003	75,583
18 RPI by Category						
Training		57	43	28	25	25
Maintenance & Production		1,767	1,715	1,679	1,253	1,240
Research, Development & Testing		9	16	18	28	29
Storage		6,543	1,126	1,158	2,702	689
Other General Storage				5,630	2,564	2,553
Hospital & Medical		567	602	295	276	108
Administration		1,710	1,528	1,421	1,125	1,139
Bachelor Housing		1,866	1,578	1,476	960	1,000
Community Fire Area		1,960	1,707	1,543	1,124	1,209
Family Housing		2,918	1,832	1,116	1,133	1,173
Operational Bus Garage		532	623	461	599	618
Utility Buildings		370	270	275	140	143
Other						49
Not Available						
BASE		218	126	67	62	69

**PD is Percent Deviation from Base Year

USARJ Was an Integral Part of USARPAC in FY 1975

REMARKS

US Army Garrison-Honshu



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION Honshu

MACOM TSARJ

UNIT/TYPE	75	76	77	78	79	80
1 Energy Consumption & PD	1,519,362	1,461,609	1,400,724	1,381,305	1,281,130	1,162,696
2 Thermal En Cons & PD	919,350	902,250	864,050	836,175	754,200	664,000
3 Electrical En Cons & PD	580,012	559,259	536,674	545,130	526,930	498,696
4 Resident Population & PD	7,950	6,549	6,040	5,480	5,166	5,422
5 Non Resident Population & PD	9,928	9,349	10,040	10,836	11,050	9,915
6 Population Service** & PD	17,878	15,898	16,080	16,316	16,416	15,337
7 Effective Population*** & PD	11,259	9,665	9,387	9,025	9,047	8,727
8 En Consumption/Pop Served & PD	85.0	91.9	87.1	85.7	78.1	75.8
9 En Consumption/Pop & PD	134.9	151.2	149.2	153.1	141.6	133.2
10 Electric En Consumption/Resident Population	73.0	85.4	88.9	99.5	98.2	92.0
11 Industrial En Consumption & PD	4,223	4,228	4,281	4,308	5,161	5,133
12 Site Energy/Ton of Air Cooled & PD	137.3	132.3	125.4	126.5	102.1	97.2
13 Real Property Inventory (RPI) & PD	9,622	9,342	9,193	9,107	9,052	9,242
14 RPI/Effective Population	.85	.97	.98	1.01	1.00	1.06
15 Energy Consumption/GSP & PD	157,905	156,456	152,368	151,675	141,530	125,806
16 Thermal En Consumption/GSP & PD	97,625	96,591	91,990	91,817	83,319	71,846
17 Electrical En Consumption/GSP & PD	60,280	59,865	58,378	59,858	58,211	53,960
18 RPI by Category						
Training	6	42	35	25	25	25
Maintenance & Production	1,163	1,139	1,137	1,140	1,138	1,125
Research, Development & Testing	1	1	16	15	28	29
Storage	3,384	3,272	722	717	706	688
Other Controlled Storage				2,556	2,305	2,315
Hospital & Medical	276	276	272	272	272	304
Administration	1,275	1,130	1,075	1,073	1,054	1,069
Residence Housing	928	827	757	757	732	752
Community Facilities	1,014	1,037	1,031	1,030	1,051	1,126
Family Housing	1,099	1,104	1,101	1,112	1,129	1,169
Quartermaster Buildings	222	216	291	263	263	281
Utility Buildings	254	218	129	128	130	133
Other			20	19	19	26

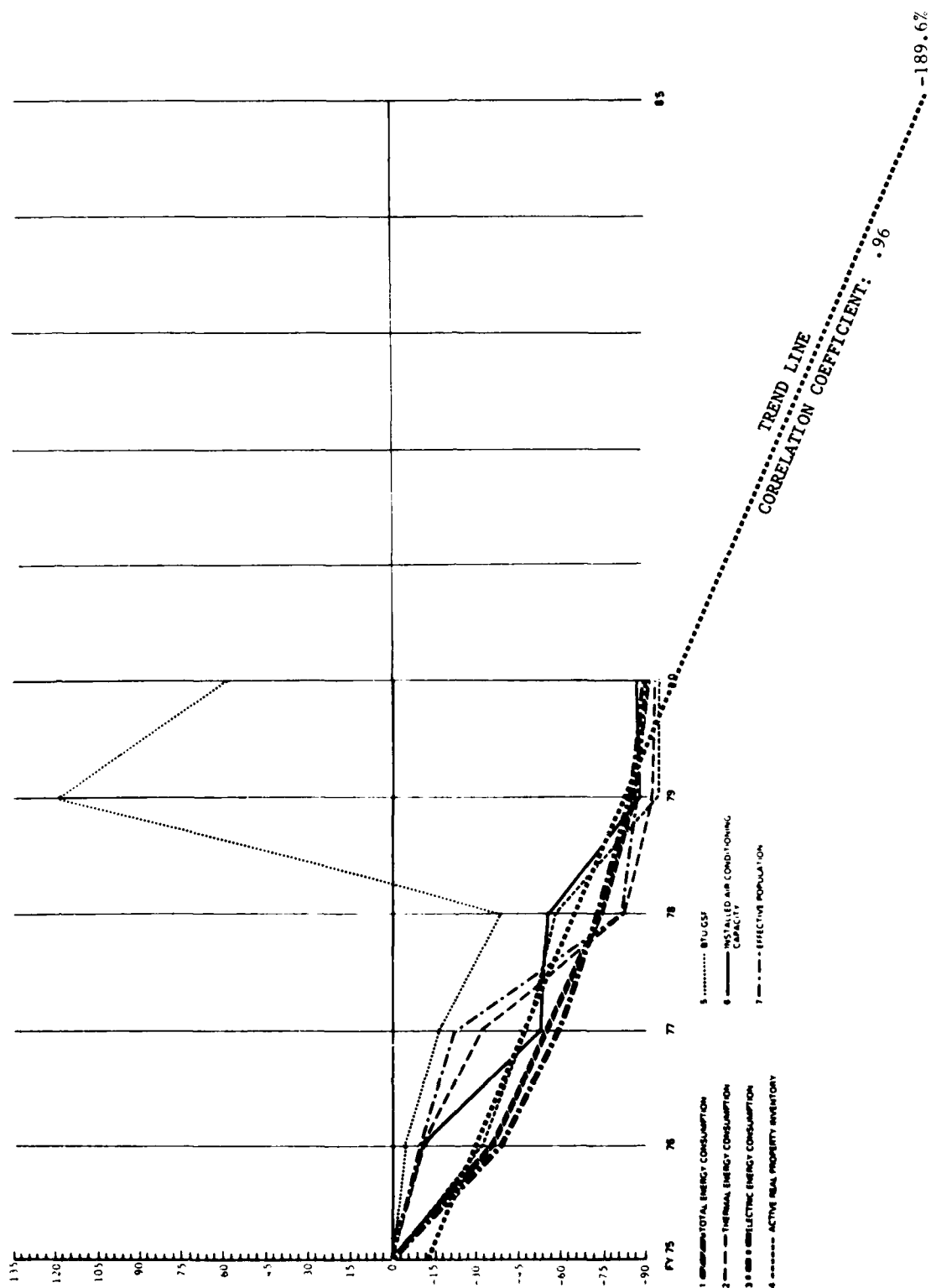
**PD is Percent Deviation from Base Year

***En Cons is Resident

****En Cons is Resident

REMARKS

US Army Garrison-Okinawa



U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION URBANA MALCOM USARV

UNIT/TYPE	PD	PD	PD	PD	PD	PD	PD	PD	PD
1 Energy Consumption to PD	2,761,067	1,281,179	-15.5	1,211,659	-36.1	711,248	-74.2	385,094	-86.1
2 Thermal En. Cons. to PD	2,298,825	1,068,925	-10.3	2,064,350	-31.8	511,150	-82.2	24,125	-92.0
3 Electrical En. Cons. to PD	2,461,242	1,512,454	-38.5	1,097,399	-59.1	660,988	-73.2	360,969	-85.3
4 Resident Population to PD	11,226	9,949	-11.6	8,717	-22.2	876	-92.2	869	-92.3
5 Non-Resident Population to PD	10,195	9,517	-6.5	8,318	-18.2	4,924	-51.7	3,222	-68.4
6 Population Served*** to PD	21,421	19,466	-9.0	17,035	-20.1	5,800	-72.9	4,091	-80.9
7 Effective Population**** to PD	14,624	13,128	-10.2	11,516	-21.1	2,517	-82.8	1,963	-86.7
8 En. Consumption/Pop. Served to PD	128.9	91.4	-29.1	71.0	-44.9	123.0	-6.6	94.1	-27.0
9 En. Consumption/Pop. Served to PD	188.8	135.7	-28.1	105.2	-44.1	283.4	50.1	138.2	5.0
10 Electric En. Consumption/Population	219.2	152.0	-30.7	115.3	-47.4	753.5	243.8	415.4	89.5
11 Installed Air Cond Capacity to PD	13,590	12,287	-9.6	6,377	-53.1	6,010	-55.8	1,659	-82.8
12 Electric Energy/Ton of Air Cond to PD	181.1	123.1	-32.0	137.9	-12.8	109.8	-19.4	217.6	20.2
13 Fuel Inventory Inventory (BPS) to PD	34,605	9,675	-32.8	7,569	-77.6	6,040	-91.6	924	-91.6
14 Inventory/Population	99	74	-25.3	66	-33.3	2,401	162.4	48	-51.5
15 Thermal En. Consumption/GSF to PD	191,674	184,122	-3.9	160,506	-16.3	118,087	-38.4	416,788	117.4
16 Thermal En. Consumption/GSF to PD	201,814	27,796	-33.9	27,070	-10.1	8,800	-57.7	26,109	25.4
17 Thermal En. Consumption/GSF to PD	170,580	136,249	-8.9	132,436	-21.9	109,287	-36.0	190,659	128.6
18 Pop. by Category	20	15	-25.0	8	-60.0	3	-66.7	1	-66.7
Training	797	628	-21.2	578	-27.5	519	-30.6	115	-78.1
Maintenance & Production	8	8	0.0	3	-62.5	3	-62.5	1	-62.5
Research, Development & Testing	3,506	3,271	-6.7	404	-87.8	441	-87.8	239	-73.2
Storage	Not Available Separately Included Above			3,168	-10.1	1,074	-66.0	4	-99.7
Other Covered Storage	329	291	-11.6	130	-59.2	23	-98.3	4	-98.3
Hospital & Medical	823	580	-29.6	453	-44.8	348	-23.0	71	-80.2
Administration	1,982	1,039	-47.6	821	-56.6	219	-73.2	268	24.2
Recreation Housing	1,878	923	-51.4	676	-63.7	513	-23.9	71	-87.8
Community Fire Area	3,534	1,814	-48.7	729	-79.8	4	-99.4	4	-99.4
Family Housing	1,123	236	-78.8	332	-71.1	198	-42.7	116	-73.2
Operational Bar Camp				161	-86.7	147	-10.6	10	-93.2
Utility Building				101	-37.5	24	-76.2	21	-79.2
Other									

***Pop. Served is the total Resident & Non-Resident Population

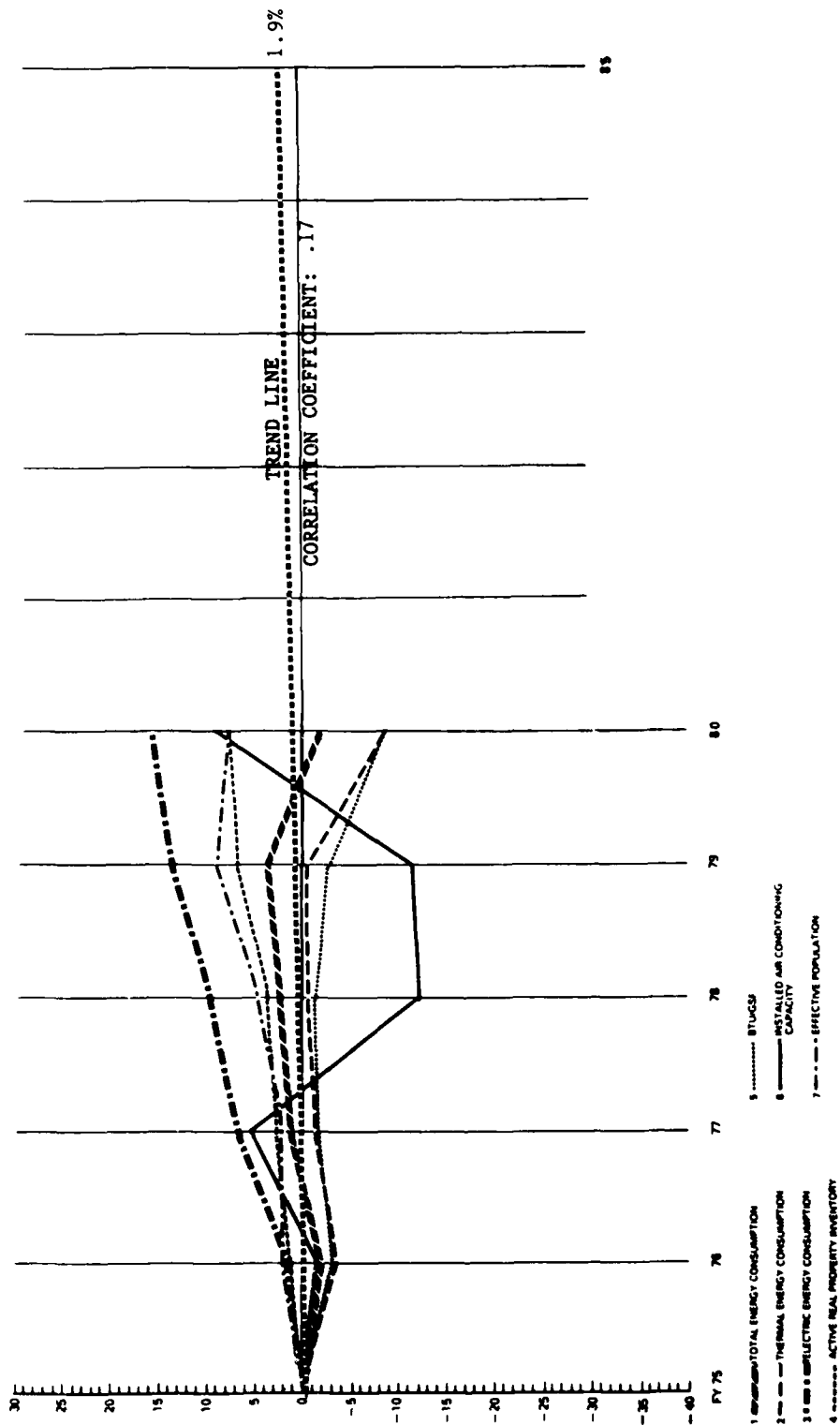
****Pop. Served is the total Resident & Non-Resident Population

*****Pop. Served is the total Resident & Non-Resident Population

*****Pop. Served is the total Resident & Non-Resident Population

REMARKS

US Army Europe Consolidation



U.S. Army

UNIT*	74	75	76	77	78	79	80
1 Energy Consumption & PD	45,671,351	44,705,817	-2.1	46,097,267	0.9	46,671,798	1.2
2 Thermal En. Cons & PD	32,971,375	31,820,525	-3.5	32,557,700	-1.3	32,731,954	-0.7
3 Electrical En. Cons & PD	12,699,978	12,885,292	1.5	13,539,567	6.6	13,941,844	3.0
4 Residential En. Cons & PD	371,201	376,276	1.4	373,207	-0.5	388,217	4.6
5 Non Residential Population & PD	11,886	128,423	7.1	138,095	15.2	128,176	-3.8
6 Population Service** & PD	432,087	504,709	2.8	511,302	4.1	512,193	4.3
7 Effective Population*** & PD	411,181	419,082	1.9	419,238	2.0	429,609	4.5
8 En. Consumption/Pop Served & PD	91.0	88.6	-4.7	90.2	3.0	91.1	2.0
9 En. Consumption/HH Pop & PD	111.1	106.7	-4.0	110.0	-1.0	108.6	-2.3
10 Electric En. Consumption/Resident Population	34.2	34.2	0	36.3	6.1	35.9	-5.0
11 Installed Air Cond Capacity & PD	11,791	11,610	-1.5	12,193	5.1	10,349	-12.2
12 Ice Emp/Ton of Air Cond & PD	1,077.1	1,109.8	3.0	1,092.5	-1.6	1,167.2	25.1
13 Real Property Inventory RPR & PD	261,084	264,026	1.1	268,088	2.7	270,710	3.7
14 Real Increase Population	0.63	0.63	0	0.64	1.9	0.63	0
15 Energy Consumption/GSF & PD	174,910	169,323	-3.2	171,948	-1.7	172,400	-1.4
16 Thermal En. Consumption/GSF & PD	126,287	120,520	-4.6	121,424	-3.8	120,903	-4.3
17 Electrical En. Consumption/GSF & PD	48,663	48,803	0.3	50,524	3.8	51,497	5.5
18 En. by Category							
19 Training							
20 Maintenance & Production							
21 Research, Development & Testing							
22 Storage							
23 Other General Storage							
24 Hospital & Medical							
25 Administration							
26 Residential Housing							
27 Community Facilities							
28 Family Housing							
29 Operational Buildings							

NAME	BASE	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-00	2100-01	2101-02	2102-03	2103-04	2104-05	2105-06	2106-07	2107-08	2108-09	2109-10	2110-11	2111-12	2112-13	2113-14	2114-15	2115-16	2116-17	2117-18	2118-19	2119-20	2120-21	2121-22	2122-23	2123-24	2124-25	2125-26	2126-27	2127-28	2128-29	2129-30	2130-31	2131-32	2132-33	2133-34	2134-35	2135-36	2136-37	2137-38	2138-39	2139-40	2140-41	2141-42	2142-43	2143-44	2144-45	2145-46	2146-47	2147-48	2148-49	2149-50	2150-51	2151-52	2152-53	2153-54	2154-55	2155-56	2156-57	2157-58	2158-59	2159-60	2160-61	2161-62	2162-63	2163-64	2164-65	2165-66	2166-67	2167-68	2168-69	2169-70	2170-71	2171-72	2172-73	2173-74	2174-75	2175-76	2176-77	2177-78	2178-79	2179-80	2180-81	2181-82	2182-83	2183-84	2184-85	2185-86	2186-87	2187-88	2188-89	2189-90	2190-91	2191-92	2192-93	2193-94	2194-95	2195-96	2196-97	2197-98	2198-99	2199-00	2200-01	2201-02	2202-03	2203-04	2204-05	2205-06	2206-07	2207-08	2208-09	2209-10	2210-11	2211-12	2212-13	2213-14	2214-15	2215-16	2216-17	2217-18	2218-19	2219-20	2220-21	2221-22	2222-23	2223-24	2224-25	2225-26	2226-27	2227-28	2228-29	2229-30	2230-31	2231-32	2232-33	2233-34	2234-35	2235-36	2236-37	2237-38	2238-39	2239-40	2240-41	2241-42	2242-43	2243-44	2244-45	2245-46	2246-47	2247-48	2248-49	2249-50	2250-51	2251-52	2252-53	2253-54	2254-55	2255-56	2256-57	2257-58	2258-59	2259-60	2260-61	2261-62	2262-63	2263-64	2264-65	2265-66	2266-67	2267-68	2268-69	2269-70	2270-71	2271-72	2272-73	2273-74	2274-75	2275-76	2276-77	2277-78	2278-79	2279-80	2280-81	2281-82	2282-83	2283-84	2284-85	2285-86	2286-87	2287-88	2288-89	2289-90	2290-91	2291-92	2292-93	2293-94	2294-95	2295-96	2296-97
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BASE

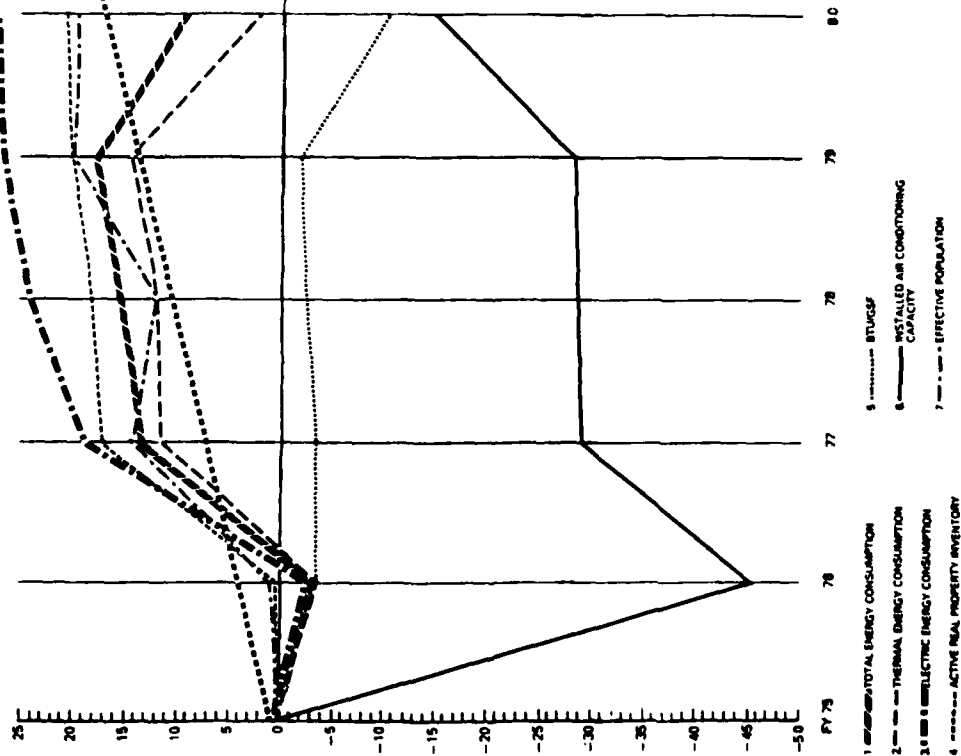
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V Corps-USAREUR

32.4%

TREND LINE
CORRELATION COEFFICIENT: .69



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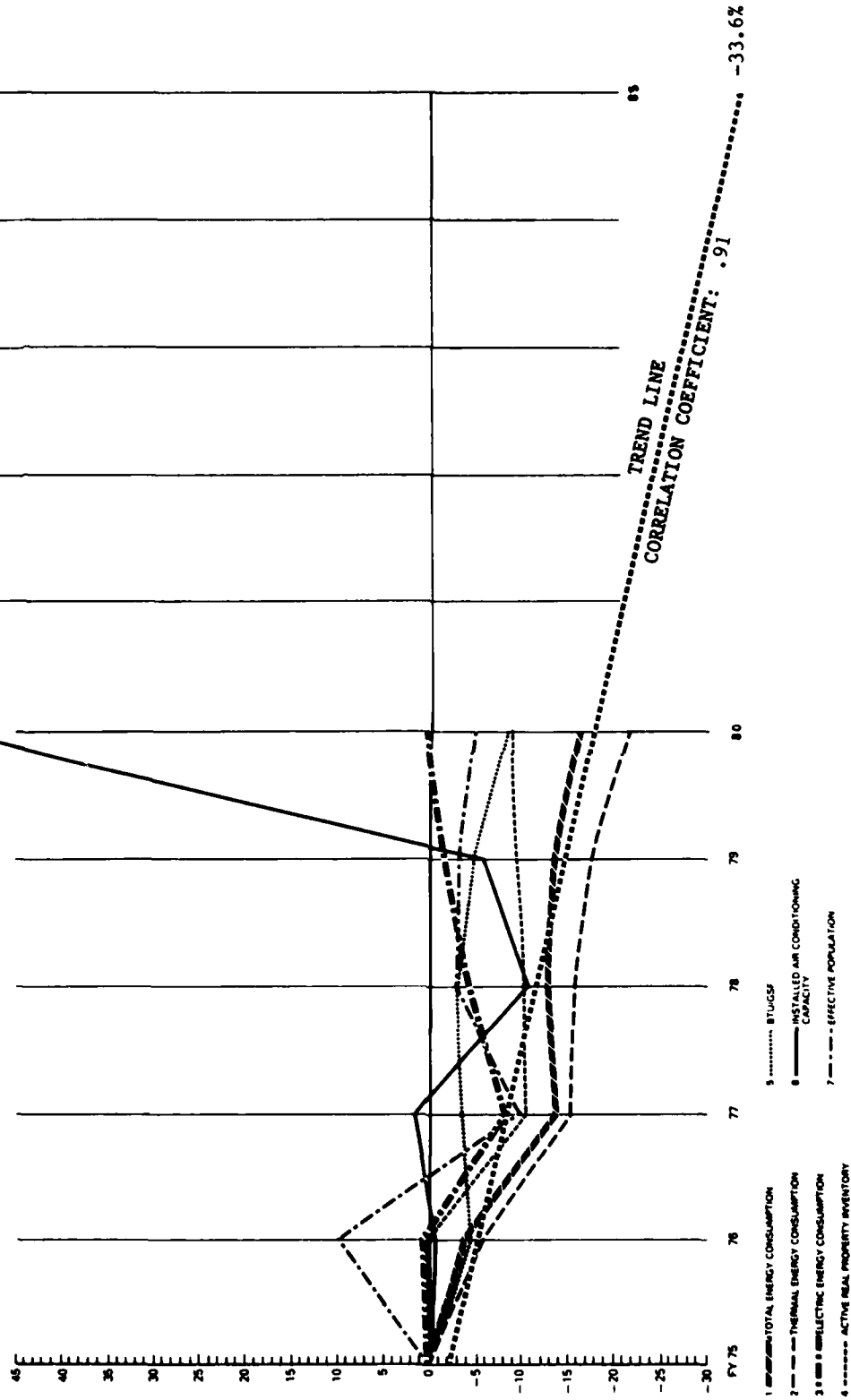
MACOM USARV

10/7/74

U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION

UNIT/TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	12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VII Corps-USAREUR



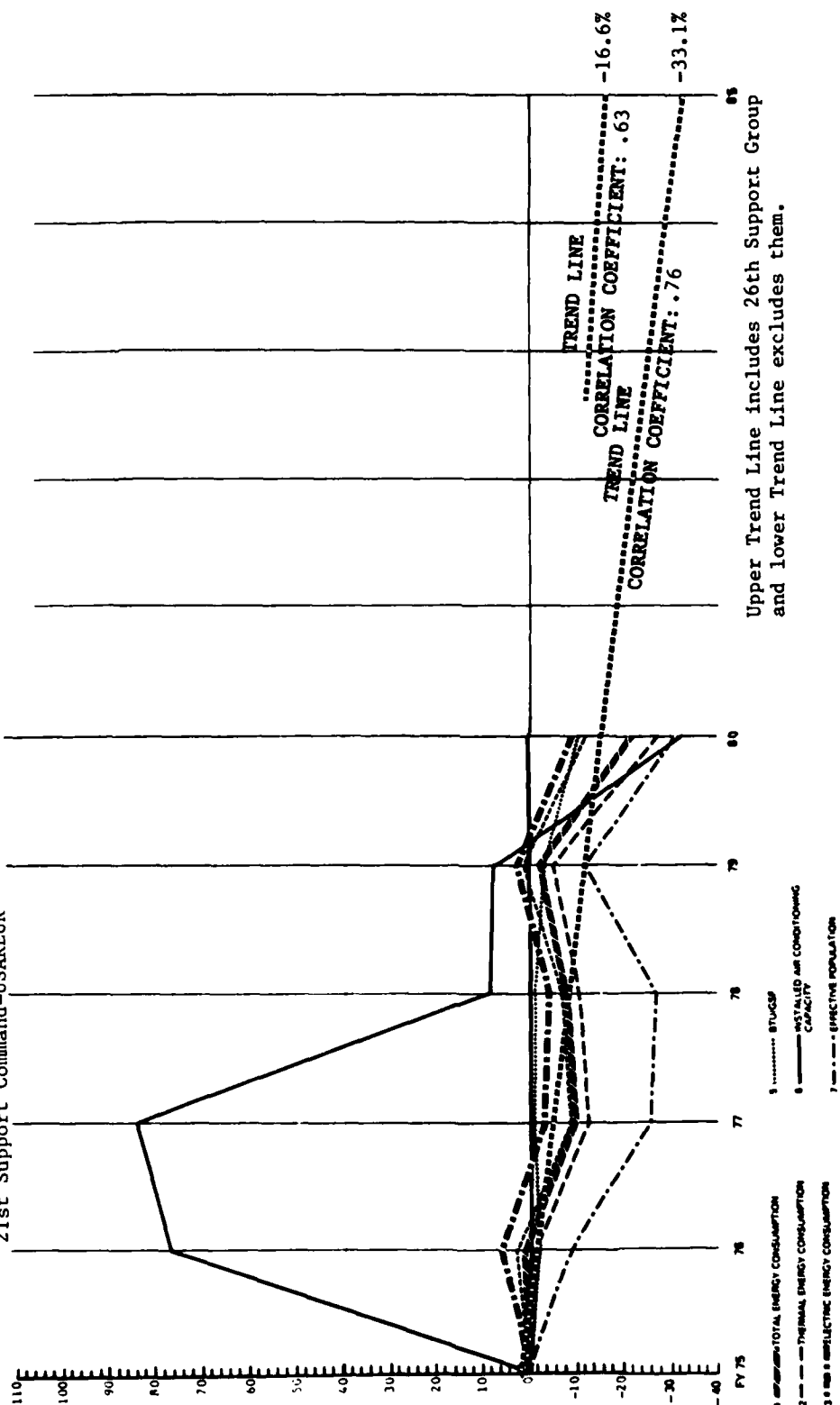
U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION VII Corps MACOM USAREUR

UNIT/ACTIVITY	75	76	77	78	79	80
1 Energy Consumption & PD	19,728,643	18,935,256	17,087,232	17,191,687	17,020,335	16,311,539
2 Thermal En Cons & PD	14,814,800	14,011,450	12,594,250	12,498,350	12,195,825	11,609,750
3 Electrical En Cons & PD	4,913,843	4,923,806	4,492,982	4,693,337	4,824,510	4,701,789
4 Non-Resident Population & PD	146,663	159,504	127,088	143,254	139,211	135,310
5 Non-Resident Population & PD	39,549	47,880	20,832	35,697	46,970	49,937
6 Population Storage & PD	186,212	207,384	177,920	178,931	186,181	185,247
7 Effective Population & PD	159,846	175,464	146,032	135,133	134,868	131,956
8 En Consumption/Pop Served & PD	105.9	91.3	96.0	96.1	91.4	89.1
9 En Consumption/Pop Served & PD	123.4	107.9	118.6	110.8	109.9	108.7
10 En Consumption/Pop Served & PD	33.4	30.9	35.4	32.8	34.7	36.2
11 Incubated Air Cond Capacity & PD	3,141	3,148	3,188	2,810	2,937	2,753
12 Elec Energy/Ton of Air Cond & PD	1,558.1	1,579.2	1,409.3	1,670.2	1,631.6	1,631.3
13 Fuel Property Inventory BPS & PD	109,473	109,663	98,034	98,217	99,050	99,737
14 Non-Resident Population	180,215	172,668	174,299	175,038	171,836	165,551
15 Energy Consumption/GSF & PD	135,511	127,768	128,568	127,252	123,128	116,704
16 Thermal En Consumption/GSF & PD	64,104	64,900	65,831	67,786	68,708	69,167
17 Electrical En Consumption/GSF & PD	64,104	64,900	65,831	67,786	68,708	69,167
18 BPS by Category						
Training	582	624	353	329	369	331
Research & Production	9,173	9,874	8,715	8,563	8,473	8,660
Other General Storage	7,628	7,612	1,506	1,478	1,505	1,349
Support & Medical	1,960	1,757	5,117	5,129	5,222	5,168
Administration	4,640	4,878	1,678	1,703	1,692	1,617
Bedroom Housing	31,084	30,743	4,544	4,604	4,717	4,854
Community Facilities	14,888	14,631	25,306	25,027	24,886	24,666
Family Housing	35,574	35,522	13,486	13,591	13,754	13,853
Quartermaster Buildings	2,290	2,317	31,834	34,214	34,914	35,460
Utility Buildings	1,452	1,471	1,982	1,927	1,784	2,038
Other	1,452	1,471	1,982	1,927	1,784	2,038
Net Available	1,452	1,471	1,982	1,927	1,784	2,038
Net Available	1,452	1,471	1,982	1,927	1,784	2,038

*PD is Percent Deviation from Base Year **Population Served is the total Resident & Non-Resident Population ***Pop is Resident + 1/2 Non-Resident

REMARKS

21st Support Command-USAREUR



Upper Trend Line includes 26th Support Group and lower Trend Line excludes them.

U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION 21st Spt Cnd MACOM USAREUR

UNIT/ACTIVITY	75	76	77	78	79	80
1 Energy Consumption & PD	10,919,788	11,037,575	9,885,621	10,001,861	10,572,327	8,513,886
2 Thermal En Core & PD	7,458,650	7,352,475	6,532,200	6,696,850	7,021,750	5,384,600
3 Electrical En Core & PD	3,461,138	3,685,100	3,353,421	3,304,991	3,544,577	3,129,286
4 Resident Population & PD	99,646	90,319	70,021	70,068	83,058	83,386
5 Non Resident Population & PD	16,704	15,135	34,127	35,752	44,767	38,732
6 Population Saved*** & PD	136,350	125,454	106,138	105,870	127,825	100,138
7 Effective Population*** & PD	111,881	102,031	83,387	81,985	97,980	75,037
8 En Consumption/Pop Saved & PD	80.1	88.0	93.1	94.5	82.7	85.0
9 En Consumption/Pop Saved & PD	97.6	108.2	118.6	122.0	107.9	112.6
10 Electric En Consumption/Resident Population	34.7	40.8	46.6	47.2	42.7	49.4
11 Heated Air Cond Capacity & PD	2,338	4,146	4,305	2,552	2,515	1,566
12 Fuel Property Inventory RHP & PD	1,480.4	888.8	778.9	1,295.1	1,409.4	1,986.3
13 Fuel Property Inventory RHP & PD	70,124	72,402	63,621	65,089	70,443	61,420
14 RHP/Effective Population	.63	.71	.76	.79	.72	.80
15 Energy Consumption/GSF & PD	155,721	152,448	155,383	153,664	150,083	138,617
16 Thermal En Consumption/GSF & PD	106,364	101,550	102,674	102,888	99,765	87,668
17 Electrical En Consumption/GSF & PD	49,357	50,898	52,709	50,776	50,318	50,949
18 RHP by Category						
Training	111	94	102	101	126	74
Maintenance & Production	4,611	4,588	4,415	4,597	4,562	4,285
Research, Development & Testing	15	15	15	15	21	21
Storage	17,999	19,199	5,774	5,958	5,886	5,941
Other General Storage	1,496	1,497	12,358	12,360	12,676	12,551
Headquarters & Medical	3,976	4,169	1,470	1,531	1,516	1,171
Administration	11,529	11,117	4,656	5,216	5,006	4,011
Backbone Housing	6,175	6,402	2,964	3,232	3,086	2,029
Community Facilities	20,954	21,229	16,155	16,844	19,955	15,337
Family Housing	2,218	2,063	1,983	1,887	2,202	2,130
Operational Storage	1,040	867	952	957	1,001	957
Utility Buildings	Not Available	782	146	241	191	37
Other						

(1) FY 75 Includes: (2) FY 76 Includes: (3) FY 77 Includes: (4) FY 78 Includes: (5) 26th Spt Gp Reported Separately in FY 80

HQ 1st BDE - Germany; USAREUR
NATO SHAPE Spt Gp; USAEMAE
German Shepherd Army Depot; Management Ctr
Burtonwood, Germany; 6 NATO - SHAPE Spt. Gp.
HYTHE - USAREUR.

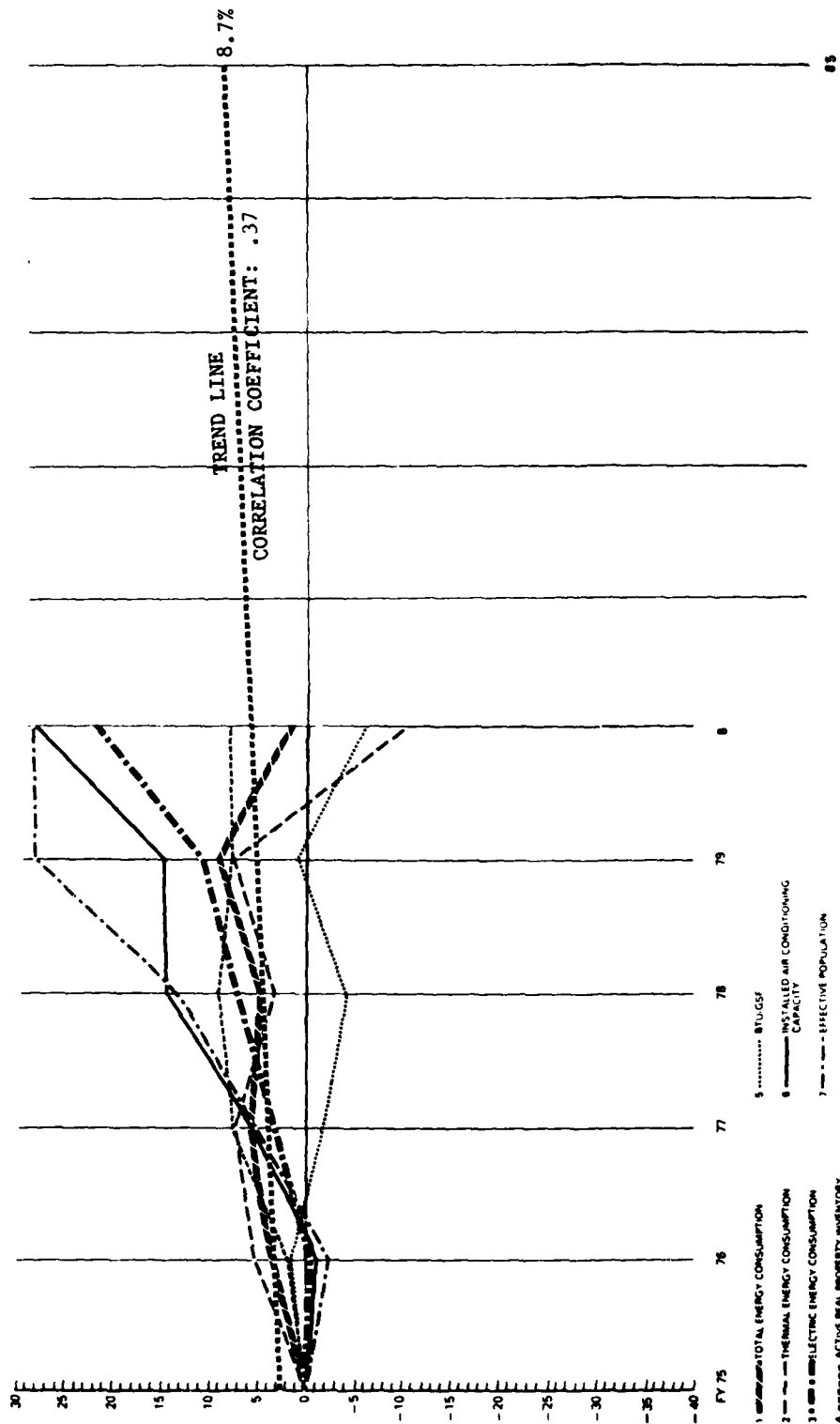
U.S. Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION 26th Spt Gp (Heidelberg) MACOM USAREUR

UNITS/FY	75	80
1. Energy Consumption & PD	1,482,613	1,454,910
2. Thermal En Core & PD	1,000,761	930,300
3. Electrical En Core & PD	481,852	524,610
4. Resident Population & PD		34,206
5. Non-Resident Population & PD		9,055
6. Population Served** & PD		23,261
7. Effective Population*** & PD		17,224
8. En Consumption/Pop Served & PD		62.5
9. En Consumption/En Pop & PD		84.5
10. Basic En Consumption/Resident Population		36.9
11. Installed Air Cond Capacity & PD		817
12. Btu Energy/Ton of Air Cond & PD		642.1
13. Real Property Inventory Btu's & PD		9,294
14. IPUE/Effective Population		54
15. Energy Consumption/GSF & PD		156,543
16. Thermal En Core Imp/En GSF & PD		100,087
17. Electrical En Core Imp/En GSF & PD		56,456
18. IPUE by Category		6
Training		255
Maintenance & Production		60
Research, Development & Testing		359
Storage		331
Other Covered Storage		1,027
Hospital & Mail		1,032
Administration		1,254
Bachelor Quarters		4,656
Community Facilities		103
Family Housing		67
Operational Bu Shps		764
Utility Buildings		
Other		

Not Available
BASE
*PD is Percent Deviation from Base Year
**Population Served is the total Resident & Non-Resident Population
***En Pop is Resident + 1/3 Non-Resident
Separated from 21st Spt CMD as of FY 1980. Energy Consumption for Heidelberg Military Community for FY 1975 is used as a Base for Comparison Purposes.

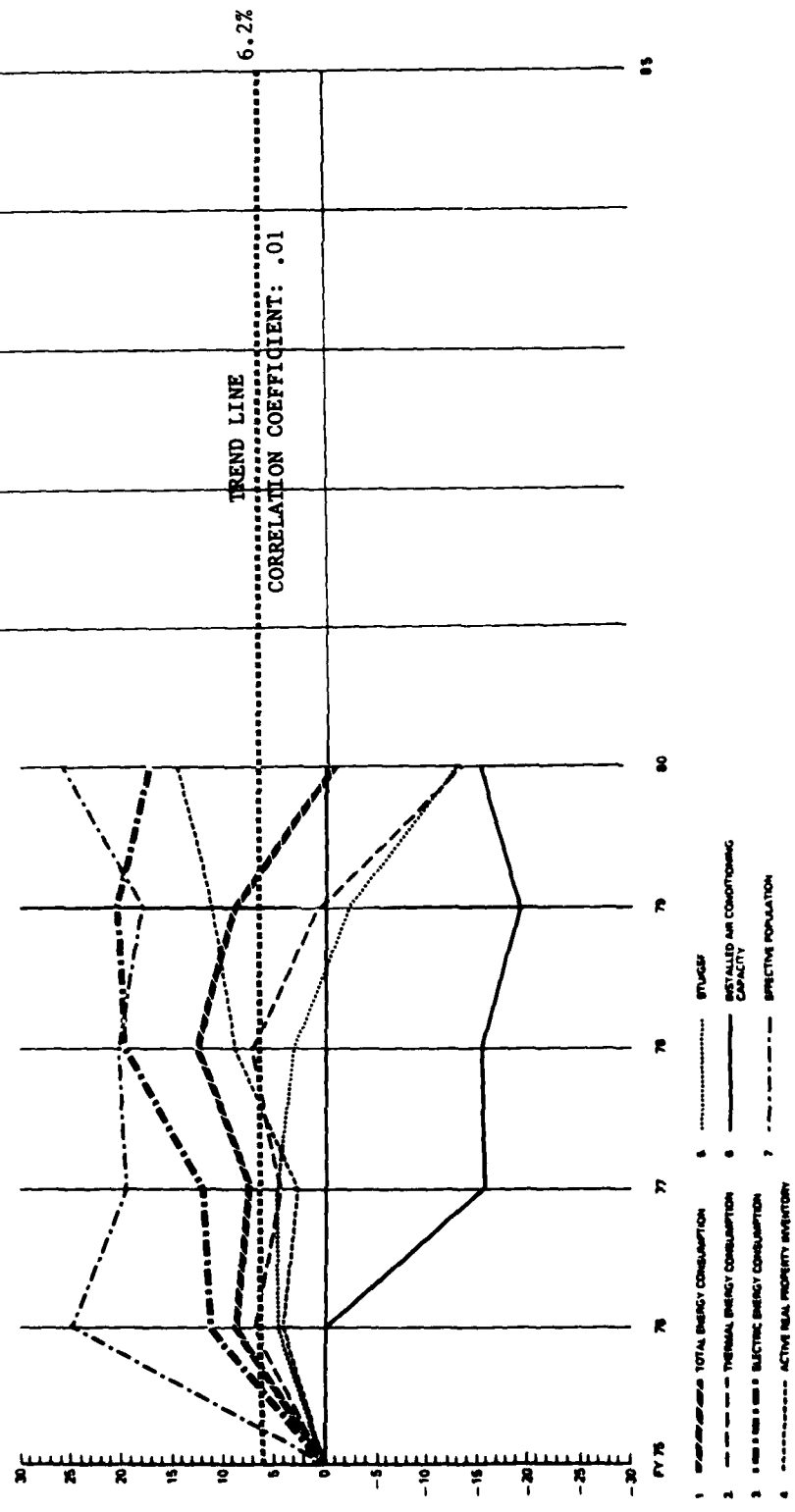
REMARKS

Berlin-USAREUR

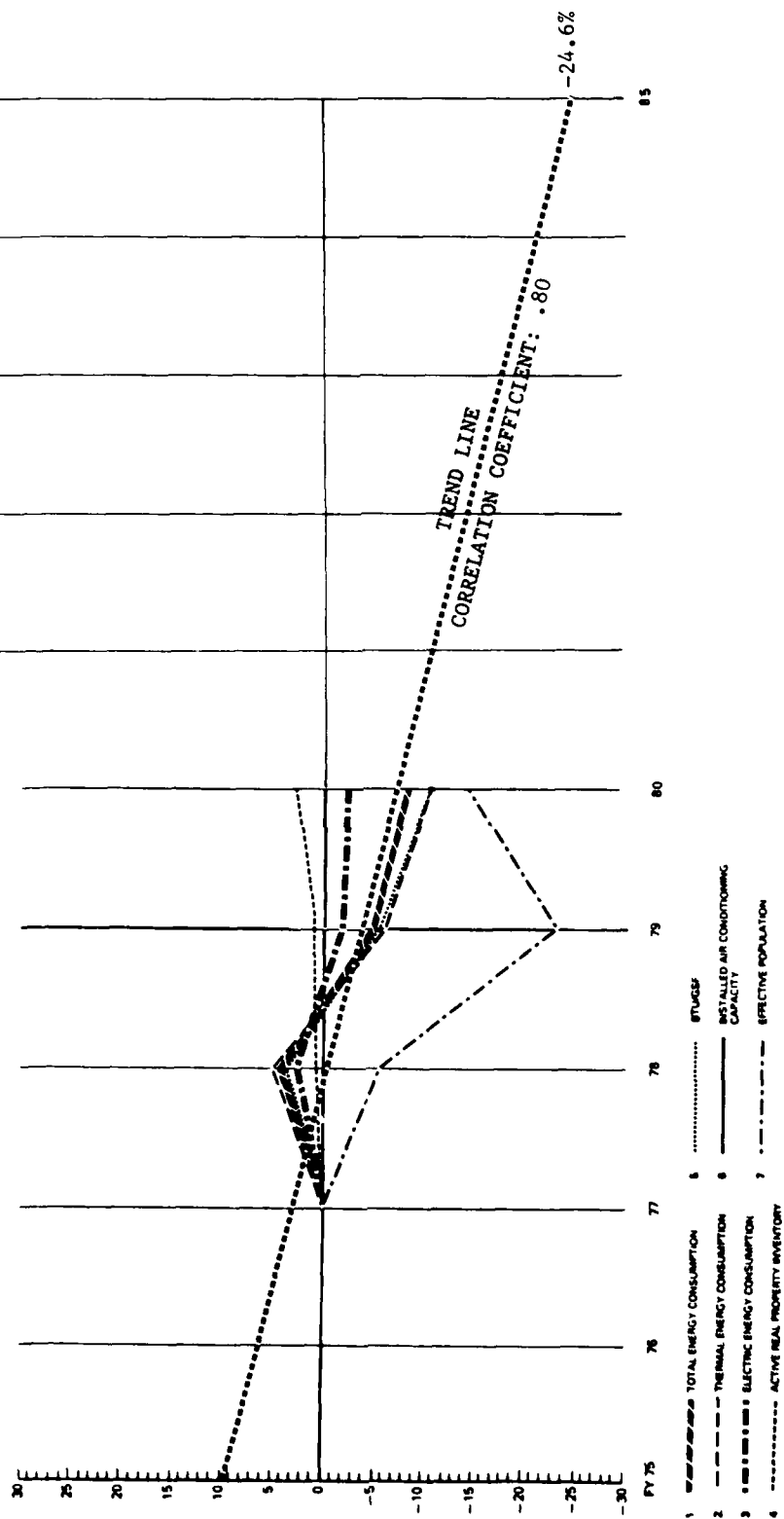


Year	PD	PD %	PD % Deviation from Base Year	Population Served is the total Resident to Non Resident Population	***EM Pop is Residents + 1/3 Non Resident
1980	86	86			
1981	86	86			
1982	86	86			
1983	86	86			
1984	86	86			
1985	86	86			
1986	86	86			
1987	86	86			
1988	86	86			
1989	86	86			
1990	86	86			
1991	86	86			
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2010	86	86			
2011	86	86			
2012	86	86			
2013	86	86			
2014	86	86			
2015	86	86			
2016	86	86			
2017	86	86			
2018	86	86			
2019	86	86			
2020	86	86			

SETAF-USAREUR



7th Army Training Command-USAREUR



U S Army ANALYSIS OF ENERGY CONSUMPTION INSTALLATION 7th Army Twp (md) MACOM USAMEIR

UNIT/ACTIVITY	75	76	77	78	79	80
1 Energy Consumption & PD			2,244,918	2,162,344	2,153,032	2,075,491
2 Thermal En Cons & PD			1,615,550	1,696,875	1,516,575	1,441,400
3 Electrical En Cons & PD			649,368	665,469	636,457	634,091
4 Resident Population & PD			31,217	29,425	23,130	26,457
5 Non Resident Population & PD			6,870	7,628	6,819	6,776
6 Population Serv** & PD			38,107	36,753	30,229	33,233
7 Effective Population*** & PD			33,527	31,668	25,670	28,716
8 En Consumption/Pop Served & PD			59.4	64.3	71.2	62.5
9 En Consumption/En Pop & PD			67.6	74.6	83.9	72.3
10 Electric En Consumption/Effective Population			20.8	22.8	27.2	24.0
11 Installed Air Cond Capacity & PD			13	16	16	16
12 Elec Energy/Ton of Air Cond & PD			NA	NA	NA	NA
13 Fuel Property Inventory (RPM) & PD			12,433	12,694	12,541	12,777
14 R&D/Effective Population			37	39	49	44
15 Energy Consumption/GSF & PD			182,170	189,078	171,679	162,440
16 Thermal En Consumption/GSF & PD			129,940	135,815	120,929	112,812
17 Electrical En Consumption/GSF & PD			52,230	53,263	50,750	49,628
18 RPM by Category						
Training			316	321	336	354
Maintenance & Production			909	903	913	920
Research, Development & Testing			59	106	134	133
Storage			956	978	975	1,042
Other Covered Storage			102	102	102	102
Hospital & Medical			379	390	399	449
Administration			5,303	5,274	5,134	4,959
Bachelor Housing			1,509	1,509	1,532	1,526
Community Facilities			2,489	2,518	2,518	2,651
Family Housing			257	234	342	382
Operational Buildings			113	116	117	119
Utility Buildings			41	41	19	50
Other						

**PD is Percent Deviation from Base Year **Population Served is the total Resident & Non Resident Population

Was part of VII Corps & Other Activities Prior to FY 1977. FY 1977 Data Used as Base for Percent Deviations

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